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FIRST REPORT OF THE COMMISSION ON MERCHANT MARINE AND DEFENSE:

APPENDICES

SEPTEMBER 30, 1987

COMPLETED

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Honorable John A. Gaughan *Maritime Administrator*

Honorable Edward E. Carlson *Chairman Emeritus, United Airlines*

Honorable William E. Haggett *President, Bath Iron Works Corporation*

Admiral James L. Holloway, III, USN (Ret.) *President, Council of American-Flag Ship Operators*

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Lieutenant Commander Robert N. Smith, USN
Lieutenant Commander Michael J. Sorek, USN
Lieutenant Colonel Ky L. Thompson, USMC

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Appendices

Appendix A: The Commission - Enabling Legislation.....1

Appendix B: Synopsis of Commission Public Hearings.....5

Appendix C: U.S. Merchant Marine and Other Strategic Sealift Resources.....11

C-1: Total U.S. Flag Fleet (#s).....12
C-2: Total U.S. Flag Fleet (DWT).....13
C-3: Strategic Sealift Assets (Dry Cargo).....14
C-4: Strategic Sealift Assets (Tankers).....15
C-5: U.S. Flag Militarily Useful Dry Cargo Ships (DWT).....16
C-6: U.S. Flag Militarily Useful Tankers.....17
C-7: MARAD General Dry Cargo Fleet Forecast.....18
C-8: Ship Listing - 1987.....19

Appendix D: U.S. Seagoing Labor.....39

D-1: Summary of Seagoing Labor - 1987.....42
D-2: Summary of Seagoing Labor - 2000.....43
D-3: 1987 Manpower Listing by Fleet.....44

Appendix E: Shipbuilding and Repair Industry and Supplier Base.....61

E-1: Open Shipyards, Ship Repair Facilities and Boat Yards.....62
E-2: List of Closed Shipyards (1980 - 1987).....109
E-3: Methodology and Assumptions Used in the Shipyard Analysis.....119
E-4: Inactive Ships in Navy Custody (ISNAC).....126
E-5: Sealift Enhancement Features.....128
E-6: Design Characteristics for the MARAD Mobilization Ships.....132
E-7: List of Major Naval and Merchant Ship Components.....133

Appendix F: Summary of U.S. Oceanborne Foreign Trade (1982 - 2000).....135

Appendix G: Summary of Previous Studies on the U.S. Merchant Marine.....139

Appendix H: Comparison of the Major U.S. Liner Companies, 1970 and 1987.....169

Appendix I: A Glossary of Maritime Terms.....173

APPENDIX A

THE COMMISSION -

ENABLING LEGISLATION

COMMISSION ON MERCHANT MARINE AND DEFENSE

Pub.L. 98-525, Title XV, Sec. 1536, October 19, 1984, 98 Stat. 2633, amended Pub.L. 99-145, Title XIV, Sec. 1431, Nov. 8, 1985, 99 Stat. 754; Pub.L. 99-426, Sept. 30, 1986, 100 Stat. 979:

(a) There is hereby established a commission to be known as the Commission on Merchant Marine and Defense (hereinafter in this section referred to as the "Commission").

(b) The Commission shall study problems relating to transportation of cargo and personnel for national defense purposes in time of war or national emergency, the capability of the United States merchant marine to meet the need for such transportation, and the adequacy of the shipbuilding mobilization base of the United States to meet the needs of naval and merchant ship construction in time of war or national emergency. Based on the results of the study, the Commission shall make such specific recommendations, including recommendations for legislative action, action by the executive branch, and action by the private sector, as the Commission considers appropriate to foster and maintain a United States merchant marine capable of meeting national security requirements. The recommendations of the Commission shall be provided in the reports of the Commission due 12 months after the date on which sufficient members of the Commission to constitute a quorum have been appointed and 24 months after such date, under subsection (g).

(c)(1) The Commission shall be composed of seven members as follows:

(A) The Secretary of the Navy (or his delegate), who shall be the Chairman of the Commission.

(B) The Administrator of the Maritime Administration (or his delegate).

(C) Five members appointed by the President, by and with the advice and consent of the Senate from among individuals of recognized stature and distinction who by reason of their background, experience, and knowledge in the fields of merchant ship operations, shipbuilding and its supporting industrial base, maritime labor, and defense matters are particularly suited to serve on the Commission.

(2) A vacancy in the Commission shall be filled in the manner in which the original appointment was made. Appointments may be made under paragraph (1)(C) without regard to section 5311(b) of title 5, United States Code [section 5311(b) of Title 5]. Members appointed under such paragraph shall be appointed for the life of the Commission.

(3) Four members of the Commission shall constitute a quorum, but a lesser number may hold hearings. The Commission shall meet at the call of the Chairman.

(d)(1) Members of the Commission appointed under subsection (c)(1)(C) may each be paid at a rate equal to the daily equivalent of the rate of basic pay payable for level IV of the Executive Schedule for each day (including travel time) during which they are engaged in the actual performance of the business of the Commission. Other members of the Commission shall receive no additional pay, allowances, or benefits by reason of their service on the Commission.

(2) A member of the Commission appointed under subsection (c)(1)(C) (who is not otherwise employed by the Federal Government) shall not be considered to be a Federal employee, except for the purposes of--

(A) chapter 81 of title 5, United States Code, relating to compensation for work-related injuries [section 8101 et seq. of Title 5]; and

(B) chapter 171 of title 28, United States Code, relating to tort claims [section 2671 et seq. of Title 28, Judiciary and Judicial Procedure].

(e)(1) The Commission may (without regard to section 5311(b) of title 5, United States Code)[section 5311(b) of Title 5] appoint an executive director, who shall be paid at a rate not to exceed the rate of basic pay payable for level IV of the Executive Schedule.

(2) The Commission may appoint such additional staff as it considers appropriate. Such personnel shall be paid at a rate not to exceed the rate of basic pay payable for grade GS-18 of the General Schedule under section 5332 of title 5, United States Code [section 5332 of Title 5].

(3) The executive director and staff of the Commission may be appointed without regard to the provisions of title 5, United States Code, governing appointments in the executive branch and may be paid without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title [sections 5101 et seq. and 5331 et seq. of Title 5] relating to classification and General Schedule pay rates.

(4) The Commission may procure temporary and intermittent services under section 3109 (b) of title 5, United States Code [section 3109(b) of Title 5].

(f)(1) The Secretary of the Navy and the Administrator of the Maritime Administration may detail personnel under their jurisdiction to the Commission in carrying out its duties under this section.

(2) The Secretary of the Navy and the Administrator of the Maritime Administration may provide to the Commission such administrative support services as the Commission may require.

(g) Not later than nine months after the date on which sufficient members of the Commission to constitute a quorum have been appointed and not later than 21 months after such date, the Commission shall submit to the President and to Congress a report containing its findings of fact and its conclusions. Not later that 12 months after such date and not later than 24 months after such date, the Commission, based upon those findings and conclusions, shall prepare a report containing the recommendations of the Commission as specified in subsection (b) and shall submit the report to the President and Congress. Each such report shall be prepared without any prior review or approval by any official of the executive branch (other than the members and staff of the Commission).

(h) The Commission shall cease to exist 90 days after the date on which the final report of the Commission under subsection (g) is submitted to the President and the Congress.

(i) There is authorized to be appropriated for fiscal years 1985, 1986, and 1987, a total of $1,500,000 to carry out this section. Any amount appropriated under this subsection shall remain available until 36 months after the date on which sufficient members of the Commission to constitute a quorum have been appointed.

APPENDIX B

SYNOPSIS OF COMMISSION

PUBLIC HEARINGS

SYNOPSIS OF COMMISSION PUBLIC HEARINGS

A synopsis of the 1987 public hearings held by the Commission on Merchant Marine and Defense and witnesses at each is listed below.

1. FEBRUARY 26, 1987

Witnesses from the bulk shipping industry testified before the Commission. Bulk cargo ships include tankers carrying petroleum products as well as ships carrying dry cargoes such as grain. Most bulk ships that are U.S. owned are registered under foreign flags. U.S. owners and operators of bulk cargo ships, both dry and liquid, presented their views. The witnesses were:

Mr. Ernest Corrado, President, American Institute of Merchant Shipping (AIMS);

Mr. Ran Hettena, President, Maritime Overseas Corporation;

Mr. Philip J. Shapiro, Vice President and General Counsel, Apex Marine Corporation;

Mr. Joseph Klausner, Counsel, Independent U.S. Tanker Owned Committee (ITOC); and

Mr. Philip J. Loree, Chairman, Federation of American Controlled Shipping (FACS).

2. MARCH 16, 1987

Witnesses representing U.S. owners and operators of the U.S. liner shipping industry presented testimony before the Commission. The liner trade is composed of dry cargo ships, mostly container vessels, providing scheduled service on fixed routes. The liner companies operate in the protected domestic trade as well as in foreign trade, and include companies that are both subsidized and non-subsidized. The witnesses were:

Mr. W. J. Amoss, Chairman and Chief Executive Officer, Lykes Bros. Steamship Company, Inc.;

Mr. Richard Parks, President, Farrell Lines;

Mr. William Williams, Vice President, American President Lines, Ltd.

Panel for the Domestic (Jones Act) Operators

Captain Warren G. Leback, Senior Vice President, Vessel Operations, Puerto Rico Marine Management, Inc.;

Mr. David Anderson, Associate General counsel, Matson Navigation Company;

Mr. Jack Park, Vice President, Government Relations, Crowley Maritime Corporation; and

Mr. Alan Butchman, Attorney and Counsel, on behalf of Mr. Robert McMillan, President, Totem Ocean Trailer Express.

3. **APRIL 27, 1987**

The Commissioners held a hearing on the maritime manpower requirements necessary to provide adequate support for the defense needs of the United States. Seven individual witnesses and a panel composed of the Presidents of four state maritime academies presented testimony. The winesses were:

Captain Robert J. Lowen, President, International Organization of Masters, Mates, and Pilots of America;

Mr. Frank Drozak, President, Seafarers International Union of North America, AFL-CIO;

Mr. Fred Schamann, Vice President-Atlantic Coast, on behalf of Mr. C. E. Defries, President, National Marine Engineers Beneficial Association, AFL-CIO;

Mr. Tal Simpkins, Executive Director, AFL-CIO Maritime Committee;

Mr. Raymond T. McKay, President, Marine Engineers Beneficial Association, District 2;

Mr. Thomas C. Harper, President, Radio Officers' Union; and

RADM Thomas A. King, USMS, Superintendent, U.S. Merchant Marine Academy, Kings Point.

Panel for the State Maritime Academies:

RADM Floyd H. Miller, USN (Ret.), President. State University of New York Maritime College (Spokesman);

The Honorable Kenneth M. Curtis, President, Maine Maritime Academy;

RADM William H. Clayton, USMS, Superintendent, Texas Maritime College; and

RADM James F. McNulty, USMS, Director, The Great Lakes Maritime Academy.

4. **MAY 18, 1987**

Witnesses representing the U.S. shipbuilding and ship-repair industry testified before the Commission. The discussions specifically addressed the areas of constructing, repairing, and maintaining the Naval and merchant shipping required to support the defense needs of the United States, and the problems of sustaing a sufficient shipyard mobilization base during time of war or national emergency.

Mr. Paul J. Burnsky, President, Metal Trades Department, AFL-CIO; accompanied by Mr. Clarence E. Briggs, Secretary-Treasurer, Pacific Coast Metal Trades District Council; and Mr. Ronald Ault, Business Representative, International Association of Machinists and Aerospace Workers, Norfolk Naval Shipyard;

Mr. John Stocker, President, Shipbuilders Council of America;

Mr. Neal S. Platzer, President, Platzer Shipyard, Inc., for Mr. Joe Farrell, President, American Waterways Operators, Inc.;

Mr. Hans K. Schaefer, Chairman, Todd Shipyards Corporation;

Mr. David H. Klinges, President, Maritime Construction, Bethlehem Steel Corporation;

Mr. Richard A. Goldbach, President, Metro Machine Corporation;

Mr. James L. Murray, Chairman of the Board, ADDSCO Industries, Inc.; and

Mr. Del Smith, Director of Marketing, for Mr. Tom B. Bender, Jr., President, Bender Shipbuilding and Repair.

5. **JUNE 22, 1987**

The Commissioners received testimony from the users of maritime transportation. Witnesses from the industries that employ ocean transportation to ship commodities, and from organizations representing such industries, presented testimony. The witnesses were:

Mr. Clifford Sayre, Director of Logistics, Material and Logistics Department, E. I. DuPont de Nemours, on behalf of the National Industrial Transportation League;

Mr. H. George Miller, Executive Director, Shippers for Competitive Ocean Transportation (S.C.O.T.);

Mr. Stanley M. Smith, Export Coordinator, Commodity Marketing Division, Cargill, Inc.;

Mr. George L. Berg, Jr., Assistant Director of National Affairs, American Farm Bureau Federation;

Mr. John G. Kauffman, Vice President-Transportation, Weyerhaeuser Company, on behalf of the American Paper Institute, Inc., and the National Forest Products Association;

Mr. Bayard Tynes, Assistant to the President, and Manager, Export Sales, Drummond Company, Inc., on behalf of the National Coal Association and the Coal Exporters Association; and

Mr. Thomas Wyman, Manager, Government and Public Affairs, Chevron Shipping Company, on behalf of the American Petroleum Institute.

6. JULY 27, 1987

The Commissioners held a hearing to receive testimony from individuals and organizations representing industries that supply equipment and material to shipyards and ship operators. The testimony specifically addressed the problems of maintaining a sufficient industrial base to support ship construction, ship repair, and ship operations for the defense needs of the United States during time of war or national emergency. The witnesses were:

Mr. A. C. (Cameron) Blandford, Director of Materials Management, representing Newport News Shipbuilding; accompanied by Mr. Bill Walsh, Legal and Corporate Office.

Panel for Allied Industries Committee of the Shipbuilders Council of America:

Mr. Charles A. Orem, President and CEO, Bird-Johnson Company;

Mr. Walter Herr, Director of Business Development, Colt Industries, Inc.;

Mr. Richard Glenn, President and CEO, Jered-Brown Brothers, Inc.;

Mr. Larry J. Holley, President, Mr. Daniel A. Marangiello, Executive Director, and Mr. Jack P. Janetatos, Past President, representing the Marine Machinery Association;

Dr. Jacques S. Gansler, Vice President and Director, The Analytic Sciences Corporation (TASC);

Mr. Ray Haley, President and CEO, Marine Gears, Inc., representing the American Gear Manufacturers Association; accompanied by Mr. Rick Normet, Director, Washington Headquarters, American Gear Manufacturers Association.

Mr. James H. Mack, Director of Public Affairs, accompanied by Mr. Charles P. Downer, Industrial Preparedness Representative, representing National Machine Tool Builders Association; and

Mr. William G. Phillips, Vice President, Government Relations, National Council to Preserve the U.S. Defense Industrial Base.

APPENDIX C

U.S. MERCHANT MARINE AND

OTHER STRATEGIC SEALIFT RESOURCES

TOTAL U.S. FLAG FLEET
(MSC, AND ACTIVE AND IDLE COMMERCIAL)

TYPE	1987	2000
DRY CARGO:		
FREIGHTER/PART. CONT.	47	7
CONTAINER SHIPS	94	40
CONTAINER BULK	0	5
CONTAINER RO-RO	8	6
RO-RO	22	13
RO-RO (MPS)	13	13
BARGE CARRIERS	11	4
CAR CARRIERS	0	4
CONTAINER/PASS.	3	0
FLO-FLO	1	1
SUBTOTAL	199	93
TANKERS:		
PETROLEUM	193	85
SPECIAL PRODUCT	23	12
SUB-TOTAL	216	97
BULK	26	24
PASSENGER	4	3
TOTAL	445	217

TOTAL U.S. MERCHANT FLEET
(MSC, AND ACTIVE AND IDLE COMMERCIAL)

DEADWEIGHT

TYPES	1987	2000
DRY CARGO:		
FREIGHTER/PART. CONT.	651,142	105,504
CONTAINER SHIPS	2,564,219	1,285,441
CONTAINER BULK	0	207,500
CONTAINER RO-RO	186,761	153,190
CAR CARRIERS	0	80,000
RO-RO	323,097	199,044
RO-RO (MPS)	322,396	322,396
BARGE CARRIERS	410,072	168,205
CONTAINER/PASS.	27,849	0
FLO-FLO	51,254	51,254
SUBTOTAL	4,536,790	2,572,534
BULK	1,265,625	1,225,539
TANKERS:		
PETROLEUM	13,535,000	5,855,861
SPECIAL PRODUCT	1,075,600	695,430
SUB-TOTAL	14,610,600	6,551,291
PASSENGER	33,507	20,697
TOTAL	20,446,522	10,370,061

STRATEGIC SEALIFT ASSETS

MILITARILY USEFUL DRY CARGO SHIPS

	1987	2000
U.S. FLAG:		
ACTIVE	199	93
INACTIVE:		
RRF	77	100
NDRF	125	108*
MSC (ROS)	10	11
EUSC	22	10
NATO	400	400
OTHER ALLIED	25	25
TOTAL	858	747

* ASSUMES THAT ALL U.S. FLAG SHIPS LESS THAN 40 YEARS OLD ARE PLACED IN THE NDRF WHEN RETIRED FROM THE ACTIVE FLEET.

STRATEGIC SEALIFT ASSETS

MILITARILY USEFUL TANKERS

	1987	2000
U.S. FLAG:		
ACTIVE:	168	74
INACTIVE:		
RRF	8	32
NDRF	10	18*
EUSC	101	73
NATO	58	60
OTHER ALLIED	0	0
TOTAL	345	257

* ASSUMES THAT ALL TANKERS LESS THAN 35 YEARS OLD ARE PLACED IN THE NDRF WHEN RETIRED FROM THE ACTIVE FLEET.

U.S. FLAG MILITARILY USEFUL DRY CARGO SHIPS

	1987(DWT)	2000(DWT)
ACTIVE FLEET:		
COMMERCIAL	170 (3,828,932)	64 (1,855,287)
MSC	29 (707,858)	29 (717,247)
SUB-TOTAL	199 (4,536,790)	93 (2,572,534)
INACTIVE FLEET:		
MSC (ROS)	10 (203,887)	11 (223,758)
RRF	77 (1,274,347)	100 (1,823,239)
NDRF	125 (1,478,424)	108* (1,741,450)
SUB-TOTAL	212 (2,956,658)	219 (3,788,447)
TOTAL	411 (7,493,448)	312 (6,360,981)

* ASSUMES THAT ALL U.S. FLAG SHIPS LESS THAN 40 YEARS OLD ARE PLACED IN THE NDRF WHEN RETIRED FROM THE ACTIVE FLEET.

U.S. FLAG MILITARILY USEFUL TANKERS

	1987(DWT)	2000(DWT)
ACTIVE FLEET:		
COMMERCIAL	144 (6,880,400)	50 (2,708,547)
MSC	24 (720,700)	24 (721,353)
SUB-TOTAL	168 (7,601,100)	74 (3,429,900)
INACTIVE FLEET:		
RRF	8 (112,228)	32 (1,007,060)
NDRF	10 (285,519)	18*(1,036,442)
SUB-TOTAL	18 (397,747)	50 (2,043,502)
TOTAL	186 (7,998,847)	124 (5,473,402)

* ASSUMES THAT ALL TANKERS LESS THAN 35 YEARS OLD ARE PLACED IN THE NDRF WHEN RETIRED FROM THE ACTIVE FLEET.

C-7

THE U.S. FLAG PRIVATELY OWNED GENERAL CARGO FLEET: 1986 THROUGH 2000
(FLEET SIZE PER YEAR BY NUMBER OF VESSELS) 1/

VESSEL TYPE	TOTAL 1986	VIABLE 1986 2/	TOTAL 1987	VIABLE 1987 2/	TOTAL 1988	VIABLE 1988 2/	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
BARGE CARRIER	11	8	8	8	8	8	8	8	8	5	5	4	4	4	4	4	4	4
CAR CARRIER (PURE)	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CONTAINERSHIP-NSS	92	88	83	83	81	81	78	78	66	66	66	52	52	50	51	43	40	40
CONTAINERSHIP-SS	7	3	4	3	4	3	1	0	0	0	0	0	0	0	0	0	0	0
CONTAINER/BULK SHIP	0	0	0	0	0	0	3	3	5	5	5	5	5	5	5	5	5	5
CONTAINER/CAR CARRIER	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CONTAINER/RO RO SHIP	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BREAKBULK FREIGHTER	15	11	13	11	7	7	6	6	6	6	3	3	3	3	3	3	3	3
PARTIAL CONTAINERSHIP	33	28	30	28	25	25	18	18	9	9	6	6	6	6	6	6	6	6
RO RO	26	24	22	21	22	21	20	20	20	20	12	12	12	12	12	12	12	11
RO RO (MPS) 3/	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
TOTALS	202	179	182	176	172	170	158	157	136	133	119	104	104	102	103	95	92	91

1/ INCLUDES THE FOLLOWING VESSELS ON CHARTER TO THE MILITARY SEALIFT COMMAND: 4 BARGE CARRIERS, 3 FREIGHTERS, 6 PARTIAL CONTAINERSHIPS, 2 RO RO'S, AND 13 MPS RO RO'S

2/ VIABLE VESSELS ARE THOSE TRADING AS OF THE END OF THE THIRD QUARTER OF 1986, OR LAID-UP FOR LESS THAN THREE MONTHS, OR LAID-UP VESSELS SCHEDULED TO RE-ENTER SERVICE IN THE NEAR FUTURE.

3/ MARITIME PREPOSITIONING SHIPS UNDER LONG-TERM CHARTER TO THE MILITARY SEALIFT COMMAND.

COMMISSION ON MERCHANT MARINE AND DEFENSE

SHIP LISTINGS - 1987

The attached lists contain an inventory of oceangoing ships in the U.S. flag fleet (including MSC charters), the Ready Reserve Force, and the militarily useful ships in the National Defense Reserve Fleet and the Effective U.S. Controlled Fleet as of the first quarter of calendar year 1987.

Dry cargo ships, tankers, dry bulk ships and passenger ships are listed. Principal ship characteristics (attributes) are listed. The lists contain only those ships which are 6,000 deadweight tons (DWT) or greater unless a smaller ship has unique military usefulness. Ships listed in the U.S. flag fleet were owned and/or operated by commercial interests at the beginning of calendar year 1987.

ATTRIBUTES:

NISC NUMBER - A unique number assigned to the ship for identification.

FLAG - For Effective U.S. Controlled Ships (EUSC) ships only; a two character abbreviation of the flag of registry of the ship.

RGE - The range of the ship in hundreds of nautical miles.

DWT(L/T) - Deadweight tonnage of the ship in long tons.

CARGO DWT(S/T) - Cargo deadweight capacity of the ship in short tons.

TEU - Container capacity of ships carrying containers in twenty foot container equivalent units.

SQ.FT.(RO-RO) - Square foot capacity of roll-on roll-off ships.

SQ.FT. - Available square footage below decks on breakbulk and partial container ships.

MEAS TONS - Measurement tonnage capacity of the ship. (One measurement ton is equal to 40 cubic feet.)

MEAS TONS CONT - Measurement tonnage of the container portion of the ship, based on 28.625 measurement tons per TEU.

TANKER BBLS - Liquid capacity of tankers expressed in barrels.

MILUSE - Coded "y" (yes) for those tankers that meet the criteria for being militarily useful.

YEAR 1987 U.S. FLAG DRY CARGO FLEET

COMMERCIAL:

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT
36051	AUSTRAL RAINBOW	BARGE TRAN	72.2	22.5	130	29,749	24,543				34,300	
36668	LASH ATLANTICO	BARGE TRAN	74.4	22.5	120	29,820	24,602				30,380	
32762	LASH ITALIA	BARGE TRAN	70.4	22.5	120	29,820	24,602				30,380	
36948	LASH PACIFICO	BARGE TRAN	74.4	22.5	120	29,820	24,602				30,380	
40305	ROBERT E LEE	BARGE TRAN	74.2	22.0	150	40,921	33,760				43,610	
40547	SAM HOUSTON	BARGE TRAN	74.3	22.0	150	40,921	33,760				43,610	
40304	STONEWALL JACKSON	BARGE TRAN	74.2	22.0	150	40,921	33,760				43,610	
26148	GALVESTON BAY	BREAKBULK	66.2	20.0	195	14,662	12,096			12,022	18,725	
28659	GENEVIEVE LYKES	BREAKBULK	68.2	20.0	195	14,662	12,096			12,022	18,725	
56526	ISLAND HOPE	BREAKBULK	79.4	13.0	60	2,200	1,668			3,000	3,250	
65626	ISLAND MARIANA	BREAKBULK	80.4	13.0	60	2,200	1,650			3,000	3,250	
29200	PRESIDENT ADAMS	BREAKBULK	68.4	20.8	140	22,208	18,322			17,000	25,450	
31055	PRESIDENT CLEVELAND	BREAKBULK	69.4	20.8	140	22,180	18,299			17,000	25,450	
29781	PRESIDENT JACKSON	BREAKBULK	68.4	20.8	140	22,216	18,328			17,000	25,450	
30100	PRESIDENT TAYLOR	BREAKBULK	69.2	20.8	140	22,273	18,375			17,000	25,450	
56200	RAINBOW HOPE	BREAKBULK	80.0	14.0	60	2,220	1,650			3,000	3,250	
54771	RESOLUTE	BREAKBULK	44.0	10.5	120	6,147	4,918				6,125	
25702	RUTH LYKES	BREAKBULK	66.2	20.0	195	14,662	12,096			12,022	18,725	
26408	TAMPA BAY	BREAKBULK	66.3	20.0	195	14,662	12,096			12,022	18,725	
11104	TRANSCOLORADO	BREAKBULK	45.4	17.0	120	11,475	9,467			10,000	15,025	
11090	TRANSCOLUMBIA	BREAKBULK	45.4	17.0	120	11,475	9,647			10,000	15,025	
38565	LURLINE	CONT RO-RO	73.3	25.0	60	21,683	17,888	1,623	20,000			46,458
38964	MATSONIA	CONT RO-RO	73.4	25.0	60	13,860	11,435	561	100,000			16,059
11095	MAUNALEI	CONT RO-RO	44.3	17.0	200	17,898	14,766	959	7,500			27,451
30918	RAPID	CONT RO-RO	69.3	23.6	120	15,694	12,498	758	34,000			21,698
63985	SEA FOX	CONT RO-RO	85.1	14.0	180	34,163	19,883	1,928	10,000			55,189
64759	SEA LION	CONT RO-RO	85.3	14.0	180	33,600	19,883	1,928	10,000			55,189
63566	SEA WOLF	CONT RO-RO	84.4	14.0	180	34,163	19,883	1,928	10,000			55,189
24755	AMERICAN ALTAIR	CONT-BB	65.1	21.0	170	12,763	10,529	521		15,000	10,691	14,914
24578	AMERICAN DRACO	CONT-BB	65.3	21.0	170	12,763	10,529	521		15,000	10,691	14,914
29227	AMERICAN TITAN	CONT-BB	68.3	23.0	120	13,074	10,786	805		15,000	19,125	23,023
24052	ALLISON LYKES	CONT-BB20	64.3	21.0	140	15,900	13,072	521		15,000	10,691	14,901
30215	AMERICAN MONARCH	CONT-BB20	69.2	23.0	120	13,074	10,786	805		15,000	19,125	23,023
24490	AMERICAN RESERVIST	CONT-BB20	64.4	21.0	140	15,244	12,576	521		15,000	10,691	14,901
30044	AMERICAN SPITFIRE	CONT-BB20	69.1	23.0	120	13,074	10,786	805		15,000	19,125	23,023
22834	EXPORT CHALLENGER	CONT-BB20	63.2	18.5	130	12,525	10,333	439		10,000	16,675	12,555
22968	EXPORT CHAMPION	CONT-BB20	63.3	18.5	130	12,525	10,333	439		10,000	16,675	12,555
20212	JAMES LYKES	CONT-BB20	60.1	17.4	210	14,286	11,786	246		13,000	17,575	7,042
21372	JEAN LYKES	CONT-BB20	61.4	17.4	210	14,260	11,765	246		13,000	17,575	7,042
8839	JOHN LYKES	CONT-BB20	60.3	17.4	223	14,260	11,765	246		13,000	17,575	7,042
20218	JOSEPH LYKES	CONT-BB20	60.2	17.4	223	14,057	11,786	246		13,000	17,575	7,042
21627	LESLIE LYKES	CONT-BB20	62.0	17.4	231	14,286	11,786	246		13,000	17,575	7,042
24227	MALLORY LYKES	CONT-BB20	64.4	21.0	140	15,845	13,072	521		15,000	10,691	14,901
22236	MARJORIE LYKES	CONT-BB20	62.0	18.0	231	14,260	11,765	246		13,000	17,575	7,036
21031	NANCY LYKES	CONT-BB20	61.3	17.4	210	14,286	11,786	246		13,000	17,575	7,036

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT
30603	PRESIDENT WILSON	CONT-BB20	69.3	20.8	140	22,211	18,324	490		17,000	25,450	14,014
22126	SHIRLEY LYKES	CONT-BB20	62.3	18.0	223	14,286	11,786	246		13,000	17,575	7,036
24910	STELLA LYKES	CONT-BB20	65.1	21.0	140	15,900	13,072	521		15,000	10,691	14,091
20559	ZOELLA LYKES	CONT-BB20	60.3	17.4	223	14,286	11,786	246		13,000	17,575	7,036
22960	ASHLEY LYKES	CONT-BB40	63.2	18.0	231	14,286	11,786	76		13,000	17,575	2,176
21995	BRINTON LYKES	CONT-BB40	62.2	18.0	231	14,286	11,786	76		13,000	17,575	2,176
20979	SOLON TURMAN	CONT-BB40	61.0	17.4	231	11,343	9,358	76		13,000	17,575	2,176
17115	THOMPSON LYKES	CONT-BB40	60.4	17.4	210	14,286	11,786	246		13,000	17,575	7,036
80099	ADABELLE LYKES	CONT-NSS	69.1	20.0	130	15,200	12,505	1,096				31,373
28726	ALMERIA LYKES	CONT-NSS	68.1	23.0	150	17,477	14,419	1,094				31,316
63322	AMERICAN ALABAMA	CONT-NSS	84.4	18.2	300	58,600	46,937	4,258				121,886
32600	AMERICAN APOLLO	CONT-NSS	70.4	22.5	100	20,015	16,512	1,364				39,045
33125	AMERICAN AQUARIUS	CONT-NSS	71.1	22.5	100	20,105	16,587	1,364				39,045
30355	AMERICAN ASTRONAUT	CONT-NSS	69.2	22.5	100	20,434	17,334	1,326				37,957
86010	AMERICAN CALIFORNIA	CONT-NSS	85.3	18.2	300	58,600	46,932	4,258				121,886
38859	AMERICAN ENTENTE	CONT-NSS	73.4	22.6	180	31,000	26,426	1,712				49,006
33359	AMERICAN ENVOY	CONT-NSS	72.3	22.6	180	31,000	21,829	1,712				49,006
10	AMERICAN GEORGIA	CONT-NSS	85.3	18.0	260	34,841	28,570	2,306				66,009
64248	AMERICAN ILLINOIS	CONT-NSS	85.2	20.0	300	58,620	46,938	4,258				121,806
63688	AMERICAN KENTUCKY	CONT-NSS	85.1	18.2	300	57,942	47,802	4,258				121,886
27617	AMERICAN LANCER	CONT-NSS	68.2	22.5	100	22,200	17,334	1,290				36,926
30008	AMERICAN LARK	CONT-NSS	69.1	22.5	100	20,529	17,334	1,326				37,957
29114	AMERICAN LEGION	CONT-NSS	68.3	23.0	100	21,012	17,334	1,290				36,926
29197	AMERICAN LIBERTY	CONT-NSS	68.3	22.5	100	20,400	17,334	1,326				37,957
29669	AMERICAN LYNX	CONT-NSS	68.4	22.5	100	20,400	17,334	1,326				37,957
63323	AMERICAN MAINE	CONT-NSS	84.3	18.2	300	58,626	46,938	4,258				121,886
37711	AMERICAN MARKETER	CONT-NSS	73.1	22.6	180	19,500	15,290	1,356				38,816
37169	AMERICAN MERCHANT	CONT-NSS	73.2	22.6	180	19,500	15,290	1,356				38,816
64116	AMERICAN NEBRASKA	CONT-NSS	85.2	20.0	300	58,620	46,938	4,258				121,886
62754	AMERICAN NEW JERSEY	CONT-NSS	84.3	18.2	300	58,626	46,937	4,258				121,886
62755	AMERICAN NEW YORK	CONT-NSS	84.2	18.2	300	58,620	46,937	4,258				121,886
64888	AMERICAN OHIO	CONT-NSS	85.4	18.0	260	34,841	27,918	2,411				69,015
64273	AMERICAN OKLAHOMA	CONT-NSS	85.2	20.0	300	58,620	46,937	4,258				121,886
47910	AMERICAN PIONEER	CONT-NSS	79.4	22.5	180	30,415	25,575	1,708				48,892
56342	AMERICAN PURITAN	CONT-NSS	80.4	22.5	180	30,487	22,556	1,708				48,892
54771	AMERICAN RESOLUTE	CONT-NSS	80.1	20.0	120	16,205	13,369	1,070				30,629
86001	AMERICAN UTAH	CONT-NSS	85.3	18.2	300	57,942	46,932	4,258				121,886
63696	AMERICAN VIRGINIA	CONT-NSS	84.4	20.0	300	59,811	48,447	4,258				121,886
64850	AMERICAN WASHINGTON	CONT-NSS	85.4	20.0	300	59,811	46,932	4,258				121,886
52638	ARGONAUT	CONT-NSS	79.2	22.4	120	16,142	13,317	1,070				30,629
11098	BORINQUEN	CONT-NSS	45.3	17.0	120	16,977	14,006	1,169				33,463
6665	BOSTON	CONT-NSS	44.3	17.0	130	9,317	7,640	630				18,034
29665	CHARLOTTE LYKES	CONT-NSS	68.4	19.5	130	15,154	12,439	1,104				31,602
36637	EXPORT FREEDOM	CONT-NSS	72.3	20.0	120	16,343	13,483	1,070				30,629
37855	EXPORT PATRIOT	CONT-NSS	73.3	20.0	120	16,343	13,483	1,070				30,629
11114	GALVESTON	CONT-NSS	45.3	17.0	100	9,356	7,719	630				18,034
27981	HOWELL LYKES	CONT-NSS	67.3	23.0	150	17,512	14,447	1,094				31,316
56214	KAUAI	CONT-NSS	80.3	23.0	342	26,350	21,739	1,672				47,861
11100	LONG BEACH	CONT-NSS	45.3	17.0	120	16,977	14,006	1,066				30,514
31227	MANUKAI	CONT-NSS	70.1	23.0	357	27,074	22,336	1,664				47,632
31820	MANULANI	CONT-NSS	70.3	23.0	357	27,074	22,336	1,664				47,632
29583	MARGARET LYKES	CONT-NSS	68.0	19.0	158	15,772	12,505	1,096				31,373
28998	MASON LYKES	CONT-NSS	68.2	23.0	150	17,477	14,419	1,094				31,316

21

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED(
46841	MAUI	CONT-NSS	78.2	23.0
11119	OAKLAND	CONT-NSS	45.2	17.0
11102	PANAMA	CONT-NSS	45.3	17.0
6626	PHILADELPHIA	CONT-NSS	45.2	17.0
55382	PRESIDENT EISENHOWER	CONT-NSS	80.2	23.0
55856	PRESIDENT F D ROOSEVELT	CONT-NSS	80.2	23.0
35121	PRESIDENT GRANT	CONT-NSS	71.3	22.5
35429	PRESIDENT HARRISON	CONT-NSS	71.4	22.5
33964	PRESIDENT HOOVER	CONT-NSS	71.3	22.5
37720	PRESIDENT JEFFERSON	CONT-NSS	73.1	23.0
38972	PRESIDENT JOHNSON	CONT-NSS	74.1	23.0
24493	PRESIDENT KENNEDY	CONT-NSS	64.4	20.0
61001	PRESIDENT LINCOLN	CONT-NSS	82.4	22.3
37782	PRESIDENT MADISON	CONT-NSS	73.2	23.0
80001	PRESIDENT MONROE	CONT-NSS	83.1	22.3
38852	PRESIDENT PIERCE	CONT-NSS	73.4	23.0
27852	PRESIDENT TAFT	CONT-NSS	67.4	23.0
21485	PRESIDENT TRUMAN	CONT-NSS	62.2	20.0
35880	PRESIDENT TYLER	CONT-NSS	72.1	22.5
80000	PRESIDENT WASHINGTON	CONT-NSS	82.4	22.3
6637	SAN JUAN	CONT-NSS	45.2	17.0
5655	SEA-LAND ADVENTURER	CONT-NSS	63.1	19.0
37721	SEA-LAND CONSUMER	CONT-NSS	73.4	23.0
54907	SEA-LAND DEFENDER	CONT-NSS	80.1	22.0
55329	SEA-LAND DEVELOPER	CONT-NSS	80.2	22.0
33341	SEA-LAND ECONOMY	CONT-NSS	71.1	23.0
56391	SEA-LAND ENDURANCE	CONT-NSS	80.4	22.0
55235	SEA-LAND EXPLORER	CONT-NSS	80.2	22.0
55390	SEA-LAND EXPRESS	CONT-NSS	80.3	22.0
56392	SEA-LAND FREEDOM	CONT-NSS	80.4	22.0
55811	SEA-LAND INDEPENDENCE	CONT-NSS	80.3	22.0
56523	SEA-LAND INNOVATOR	CONT-NSS	80.4	22.0
5715	SEA-LAND LEADER	CONT-NSS	62.0	19.0
54781	SEA-LAND LIBERATOR	CONT-NSS	80.1	22.0
56442	SEA-LAND MARINER	CONT-NSS	80.4	22.0
5740	SEA-LAND PACER	CONT-NSS	62.4	19.0
54540	SEA-LAND PATRIOT	CONT-NSS	80.0	22.0
5637	SEA-LAND PIONEER	CONT-NSS	63.2	19.0
39765	SEA-LAND PRODUCER	CONT-NSS	74.2	21.0
32784	SEA-LAND VENTURE	CONT-NSS	70.4	23.0
55960	SEA-LAND VOYAGER	CONT-NSS	80.3	22.0
29923	SHELDON LYKES	CONT-NSS	69.2	19.0
22237	SANTA MAGDALENA	CONT-PASS	63.0	20.0
22543	SANTA MARIA	CONT-PASS	63.0	20.0
22544	SANTA MARIANA	CONT-PASS	63.0	20.0
12389	ALEUTIAN DEVELOPER	CONT-SS	60.3	16.0
22128	AMERICAN BANKER	CONT-SS	62.3	20.0
21454	AMERICAN BUILDER	CONT-SS	61.4	20.0
27002	MAUNA KEA	CONT-SS	67.1	11.0
11101	PITTSBURGH	CONT-SS	45.1	17.0
11091	SAN PEDRO	CONT-SS	45.3	17.0
6664	ST LOUIS	CONT-SS	44.2	17.0
56240	AMBASSADOR	RO-RO	80.3	17.0

PE	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT
S	78.2	23.0	342	26,662	21,996	1,672				47,861
S	45.2	17.0	120	17,000	13,940	1,066				30,514
S	45.3	17.0	120	16,705	11,965	1,066				30,514
S	45.2	17.0	110	9,357	7,720	630				18,034
S	80.2	23.0	200	47,088	38,845	2,522				72,193
S	80.2	23.0	200	47,079	38,605	2,522				72,193
S	71.3	22.5	130	29,700	24,073	1,936				55,418
S	71.4	22.5	271	29,749	24,543	1,930				55,246
S	71.3	22.5	363	29,749	24,543	1,936				55,418
S	73.1	23.0	178	20,700	17,092	1,484				42,480
S	74.1	23.0	170	20,714	17,089	1,484				42,480
S	64.4	20.0	150	19,300	15,911	1,124				32,175
S	82.4	22.3	170	30,200	24,904	2,494				71,391
S	73.2	23.0	178	20,714	17,089	1,484				42,480
S	83.1	22.3	170	30,200	24,888	2,494				71,391
S	73.4	23.0	178	20,718	17,092	1,484				42,480
S	67.4	23.0	150	17,508	10,572	1,094				31,316
S	62.2	20.0		19,871	16,294	1,124				32,175
S	72.1	22.5	130	38,800	18,805	1,936				55,418
S	82.4	22.3	170	30,200	24,888	2,494				71,391
S	45.2	17.0	160	17,897	14,765	1,169				33,463
S	63.1	19.0	189	15,270	12,550	1,190				34,064
S	73.4	23.0	220	26,624	19,040	1,328				38,014
S	80.1	22.0	242	29,391	24,635	2,472				70,761
S	80.2	22.0	242	29,348	24,600	2,472				70,761
S	71.1	23.0	220	25,290	20,864	1,328				38,014
S	80.4	22.0	242	29,730	24,534	2,472				70,761
S	80.2	22.0	242	29,342	24,594	2,472				70,761
S	80.3	22.0	242	29,270	24,703	2,472				70,761
S	80.4	22.0	242	29,295	24,555	2,472				70,761
S	80.3	22.0	242	29,280	24,577	2,472				70,761
S	80.4	22.0	242	29,392	24,636	2,472				70,761
S	62.0	19.0	189	15,174	12,443	1,190				34,064
S	80.1	22.0	242	29,295	24,555	2,472				70,761
S	80.4	22.0	242	29,392	24,670	2,472				70,761
S	62.4	19.0	189	15,212	12,550	1,190				34,064
S	80.0	22.0	242	29,280	24,542	2,472				70,761
S	63.2	19.0	189	15,289	10,955	1,190				34,064
S	74.2	23.0	220	26,624	19,040	1,328				38,014
S	70.4	23.0	200	25,522	21,060	1,328				38,014
S	80.3	22.0	242	29,900	24,677	2,472				70,761
S	69.2	19.0	193	15,772	12,505	1,104				31,602
SS	63.0	20.0	87	9,376	7,735	119			16,744	3,406
SS	63.0	20.0	85	9,097	7,505	119			17,494	3,406
SS	63.0	20.0	85	9,376	7,735	119			17,494	3,406
	60.3	16.0	113	2,294	1,893	148				4,237
	62.3	20.0	150	19,272	15,899	1,012				28,969
	61.4	20.0	150	19,272	15,899	1,012				28,969
	67.1	11.0	65	4,400	3,630	225				6,441
	45.1	17.0	130	15,956	13,084	1,054				30,171
	45.3	17.0	140	15,688	12,864	1,054				30,171
	44.2	17.0	130	15,688	12,864	1,054				30,171
	80.3	17.0	100	8,995	7,421		86,000			

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT
57251	AMERICAN CONDOR	RO-RO	81.1	19.7	193	20,730	17,102		198,000			
58580	AMERICAN FALCON	RO-RO	81	19.0	260	20,395	16,826		198,000			
46183	ATLANTIC SPIRIT	RO-RO	76.2	25.0	60	16,144	13,319		174,000			
33079	BAYAMON	RO-RO	70.4	25.0	60	14,180	11,699		168,000			
40051	CAGUAS	RO-RO	74.2	25.0	60	16,079	13,265		174,000			
47409	CYGNUS	RO-RO	77.3	19.2	312	14,935	12,321		121,000			
44477	DOCK EXPRESS TEXAS	RO-RO	76.4	12.0	120	2,804	2,313		21,000			
38394	FEDERAL LAKES	RO-RO	73.3	19.0	95	20,220	16,682		184,000			
36817	FEDERAL SEAWAY	RO-RO	72	19.0	95	20,221	16,682		184,000			
37404	FORTALEZA	RO-RO	72.4	25.0	60	13,969	11,524		175,000			
42438	GREAT LAND	RO-RO	75.3	25.0	60	16,138	13,314		174,000			
52250	JOHN HENRY	RO-RO	78.4	13.0	100	2,626	2,166		12,000			
47037	LYRA	RO-RO	77.3	19.5	267	14,591	12,038		121,000			
53373	PAUL BUNYAN	RO-RO	79.1	13.0	100	2,626	2,166		12,000			
28720	PONCE	RO-RO	68.1	25.0	60	18,429	15,204		174,000			
41585	PUERTO RICO	RO-RO	75.1	25.0	60	14,090	11,624		168,000			
57887	SENATOR	RO-RO	81.3	17.0	154	8,938	7,374		86,000			
46061	TYSON LYKES	RO-RO	76.2	23.0	190	19,172	15,817		153,000			
47131	WESTWARD VENTURE	RO-RO	77.2	25.0	60	17,915	14,780		174,000			
	MILITARY SEALIFT COMMAND CHARTERED:											
37282	AMERICAN VETERAN	BARGE TRAN	73.1	21.0	130	29,820	24,602				30,380	
41198	GREEN HARBOUR	BARGE TRAN	74 4	22.0	150	46,100	38,075				43,610	
41682	GREEN ISLAND	BARGE TRAN	75.1	22.0	150	46,100	38,075				43,610	
40843	GREEN VALLEY	BARGE TRAN	74.2	22.0	150	46,100	38,075				43,610	
22966	DAWN	BREAKBULK	63.2	20.0	176	12,728	10,501			11,347	16,050	
25206	ELIZABETH LYKES	BREAKBULK	66.0	20.0	195	14,662	12,096			12,022	18,725	
54850	GREEN WAVE	BREAKBULK	80.0	18.0	118	12,923	10,661			10,000	16,900	
27980	LETITIA LYKES	BREAKBULK	68.1	20.0	120	14,700	12,096			12,022	18,725	
25039	LOUISE LYKES	BREAKBULK	65.3	20.0	120	14,700	12,096			12,022	18,725	
30170	ROVER	CONT RO-RO	69.2	23.6	120	15,694	12,948	758	34,000			21,679
29734	AMERICAN TROJAN	CONT-BB	69.1	23.0	120	13,074	10,786	805		15,000	19,125	23,023
26157	SANTA ADELA	CONT-BB20	66.2	21.0		14,000	11,298	166		12,000	17,125	4,752
25928	SANTA JUANA	CONT-BB20	66.2	20.8	100	13,695	11,298	166		12,000	17,125	4,748
46200	AMERICAN CORMORANT	FLO-FLO	82.0	16.0	271	51,272	42,299			53,000		
57330	AMERICAN EAGLE	RO-RO	81.1	19.0		20,700	16,833		198,000			
46064	MERCURY	RO-RO	77.2	23.0	100	19,200	15,817		151,000			
	MILITARY SEALIFT COMMAND - REDUCED OPERATING STATUS:											
30561	CURTISS	T-AVB	69.2	23.6	95	13,651	11,262	684	168,000			19,580
30917	WRIGHT	T-AVB	70.1	23.6	95	13,651	11,262	684	168,000			19,580

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	RGE SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT
FSS:												
38082	ALGOL	FSS	73.0	33.0	110	26,075	21,512	44	217,380			1,260
38590	ALTAIR	FSS	73.0	33.0	110	25,595	21,116	46	211,810			1,317
36982	ANTARES	FSS	72.0	33.0	110	24,212	19,975	46	211,810			1,317
37793	BELLATRIX	FSS	73.0	33.0	110	25,915	21,380	44	217,380			1,260
36983	CAPELLA	FSS	72.0	33.0	109	25,407	20,961	46	211,810			1,317
38853	DENEBOLA	FSS	73.0	33.0	109	25,169	20,764	46	211,810			1,317
38591	POLLUX	FSS	73.0	33.0	110	24,212	19,975	46	211,810			1,317
37792	REGULUS	FSS	73.0	33.0	110	25,595	21,116	44	217,380			1,260
MPS:												
54675	1ST LT ALEX BONNYMAN	RO-RO/MPS	80.0	17.2	108	23,138	19,089	361	121,600			10,334
64887	1ST LT BALDO LOPEZ	RO-RO/MPS	85.0	18.0	128	26,502	21,864	578	152,200			16,545
1390	1ST LT JACK LUMMUS	RO-RO/MPS	86.0	18.0	128	26,502	21,864	578	152,200			16,545
63841	2ND LT JOHN P BOBO	RO-RO/MPS	85.0	18.0	128	26,523	21,881	578	152,200			16,545
53983	CPL LOUIS J HAUGE JR	RO-RO/MPS	79.0	17.2	108	23,138	19,089	361	121,600			10,334
60686	MAJ STEPHEN W PLESS	RO-RO/MPS	83.0	20.0	100	25,008	20,632	532	152,200			15,229
64304	PFC DEWAYNE WILLIAMS	RO-RO/MPS	85.0	18.0	128	26,523	21,881	578	152,200			16,545
60620	PFC EUGENE A OBREGON	RO-RO/MPS	83.0	20.0	100	25,073	20,685	532	152,200			15,229
53522	PFC JAMES ANDERSON	RO-RO/MPS	79.0	17.2	108	23,138	19,089	361	121,600			10,334
53070	PFC WILLIAM B BAUGH	RO-RO/MPS	79.0	17.2	108	23,138	19,089	361	121,600			10,334
54811	PVT HARRY FISHER	RO-RO/MPS	80.0	17.2	108	23,138	19,089	361	121,600			10,334
58444	SGT MATEJ KOCAK	RO-RO/MPS	83.0	20.0	100	24,073	19,860	532	152,200			15,229
1785	SGT WILLIAM R BUTTON	RO-RO/MPS	86.0	18.0	128	26,502	21,864	578	152,200			16,545

24

YEAR 1987 U.S. FLAG TANKER FLEET
(DOES NOT INCLUDE RESERVE FLEET TANKERS)

COMMERCIAL FLEET:

NISC NO	VESSEL NAME	SHIP TYPE	MILUSE YES OR NO	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CAPACITY BBLS
7403	ALASKAN	CHEMICAL	Y	44.3	14.0	70	24,400	170,000
28818	CHEMICAL PIONEER	CHEMICAL	Y	68.2	20.0	80	34,400	215,500
19452	CHILBAR	CHEMICAL	Y	59.1	17.0	109	33,700	298,000
32358	EDGAR M QUEENY	CHEMICAL	Y	70.3	16.0	80	37,100	298,000
32397	MARINE CHEMIST	CHEMICAL	Y	70.4	16.0	100	35,900	285,000
57958	OMI DYNACHEM	CHEMICAL	Y	81.3	15.0	230	49,500	360,000
36450	SEA VENTURE	CHEMICAL	Y	72.2	16.0	200	10,000	138,000
26492	ADONIS	CRUDE	Y	66.3	16.0	240	80,200	607,000
54277	ARCO ALASKA	CRUDE	N	79.4	15.0	130	188,400	1,300,000
55602	ARCO CALIFORNIA	CRUDE	N	80.3	15.0	130	188,700	1,300,000
38257	ARCO TEXAS	CRUDE	Y	73.2	15.0	80	90,000	516,000
46054	ATIGUN PASS	CRUDE	N	77.4	16.0		173,400	1,200,000
46095	B T ALASKA	CRUDE	N	78.1	15.0		188,100	1,300,000
46096	B T SAN DIEGO	CRUDE	N	78.4	15.0		188,100	1,300,000
6178	BEAUJOLAIS	CRUDE	Y	54.1	16.0	170	28,800	225,000
46056	BROOKS RANGE	CRUDE	N	78.2	16.0	160	173,400	1,200,000
46071	CHEVRON LOUISIANA	CRUDE	Y	77.3	15.0	99	39,500	270,000
42059	CHEVRON OREGON	CRUDE	Y	75.4	15.0	99	39,200	270,000
63186	EXXON BAYTOWN	CRUDE	Y	84.3	16.0	103	57,700	450,000
53126	EXXON BENICIA	CRUDE	N	79.2	15.0	150	172,800	1,190,000
52279	EXXON NORTH SLOPE	CRUDE	N	79.1	16.0	150	173,400	1,200,000
49102	KENAI	CRUDE	N	79.1	17.0	140	123,100	840,000
46055	KEYSTONE CANYON	CRUDE	N	78.1	16.0		173,400	1,200,000
21500	MANHATTAN	CRUDE	N	62.1	17.0	250	113,800	892,000
46066	MARYLAND	CRUDE	N	76.3	14.0	200	264,100	2,056,000
45946	MASSACHUSETTS	CRUDE	N	75.4	14.0	200	264,100	2,056,000
36959	MOBIL ARCTIC	CRUDE	N	72.3	16.0	170	129,000	937,000
10601	MOUNT VERNON VICTORY	CRUDE	Y	61.1	16.0	170	49,200	367,000
23464	MOUNT WASHINGTON	CRUDE	Y	63.4	17.0	130	49,500	367,000
46065	NEW YORK	CRUDE	N	76.2	14.0	200	264,100	2,056,000
40151	OMI COLUMBIA	CRUDE	N	74.0	16.0	250	136,200	1,048,000
39226	OVERSEAS BOSTON	CRUDE	N	74.1	16.0	150	121,700	929,000
22965	PETERSBURG	CRUDE	Y	63.2	16.0	80	50,100	367,000
46111	PRINCE WILLIAM SOUND	CRUDE	N	75.4	17.0		124,000	990,000
13959	TEXAS SUN	CRUDE	Y	60.4	17.0		53,500	405,000
46057	THOMPSON PASS	CRUDE	N	78.3	16.0	160	173,400	1,200,000
46338	TONSINA	CRUDE	N	78.2	17.0	140	122,900	840,000
18509	WESTERN SUN	CRUDE	Y	54.4	16.0	150	30,300	246,000
60682	BALTIMORE/BALTIMORE	LIQUID ITB	Y	83.2	15.0		48,000	350,000
	CAROLE G INGRAM/IOS 3302	LIQUID ITB	Y	72.1	14.0		36,600	130,000
90036	ENERGY ALTAIR/ENERGY AMMO	LIQUID ITB	Y	82.4	12.0		16,000	125,000
	ESTHER MORAN/TEXAS	LIQUID ITB	Y	63.4	12.0		18,000	125,000
	FRANCES HAMMER/OXY4103	LIQUID ITB	Y	81.3	15.0		41,000	300,000
59707	GROTON/GROTON	LIQUID ITB	Y	82.2	10.0		48,000	350,000

NISC NO	VESSEL NAME	SHIP TYPE	MILUSE YES OR NO	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CAPACITY BBLS
60157	JACKSONVILLE/JACKSONVILLE	LIQUID ITB	Y	82.1	15.0		48,000	350,000
57235	JULIUS HAMMER/OXY 4101	LIQUID ITB	Y	81.1	15.0		41,000	300,000
	MARTHA R INGRAM/IOS 3301	LIQUID ITB	Y	71.3	14.0		36,600	270,000
80005	MOBILE/MOBILE	LIQUID ITB	Y	84.2	15.0		47,600	350,000
60577	NEW YORK/NEW YORK	LIQUID ITB	Y	83.1	15.0		48,000	350,000
	OXY PRODUCER	LIQUID ITB	Y	81.0	15.0		41,000	300,000
80007	PHILADELPHIA/PHILADELPHIA	LIQUID ITB	Y	83.2	15.0		47,600	350,000
	SEABULK CHALLENGER/STL390	LIQUID ITB	Y	75.1	15.0		21,000	320,000
44901	SEABULK MAGNACHEM/SCC3902	LIQUID ITB	Y	77.1	15.0		18,700	320,000
55434	LAKE CHARLES	LNG	N	80.2	20.0	100	71,400	771,000
46074	LNG AQUARIUS	LNG	N	77.2	20.0	100	71,500	771,000
46075	LNG ARIES	LNG	N	77.4	20.0	100	71,400	771,000
46077	LNG CAPRICORN	LNG	N	78.2	20.0	100	71,400	771,000
46076	LNG GEMINI	LNG	N	78.3	20.0	100	71,400	771,000
48255	LNG LEO	LNG	N	78.4	20.0	100	71,400	771,000
52840	LNG LIBRA	LNG	N	79.2	20.0	100	71,500	771,000
53769	LNG TAURUS	LNG	N	79.3	20.0	100	71,500	771,000
54272	LNG VIRGO	LNG	N	79.4	20.0	100	71,500	771,000
56543	LOUISIANA	LNG	N	80.3	20.0	100	71,400	771,000
15941	CORNUCOPIA	LPG	N	58.4	16.0	140	22,700	150,000
	AMERICAN GULF V	PRODUCT	Y	45.3	14.0	240	17,300	141,000
46087	AMERICAN HERITAGE	PRODUCT	Y	76.4	16.0	220	91,800	663,000
38147	ARCO ANCHORAGE	PRODUCT	N	73.2	16.0	170	120,600	924,000
40502	ARCO FAIRBANKS	PRODUCT	N	74.3	16.0	170	120,600	924,000
46068	ARCO INDEPENDENCE	PRODUCT	N	77.4	15.0	200	262,400	2,056,000
39766	ARCO JUNEAU	PRODUCT	N	74.2	16.0	170	120,600	924,000
35434	ARCO PRUDHOE BAY	PRODUCT	Y	71.4	15.0	80	70,400	550,000
36206	ARCO SAG RIVER	PRODUCT	Y	72.2	16.0	80	70,400	550,000
46067	ARCO SPIRIT	PRODUCT	N	77.2	15.0	200	262,400	2,056,000
35430	ASPEN	PRODUCT	Y	71.3	17.0	99	80,600	611,000
13104	BALTIMORE TRADER	PRODUCT	Y	55.2	15.0	190	57,900	490,000
48727	BAY RIDGE	PRODUCT	N	79.2	17.0	190	225,000	1,655,000
46085	BEAVER STATE	PRODUCT	Y	76.2	17.0	220	91,800	663,000
22967	BENNINGTON	PRODUCT	Y	63.4	18.0	178	50,800	366,000
56909	BLUE RIDGE	PRODUCT	Y	81.2	15.0	99	42,300	300,000
38761	BROOKLYN	PRODUCT	N	73.4	17.0	170	226,100	1,655,000
9311	CHABLIS	PRODUCT	Y	60.4	17.0	134	29,200	250,000
3924	CHARLESTON	PRODUCT	Y	56.4	16.0	155	39,400	154,000
41878	CHELSEA	PRODUCT	Y	75.1	16.0	170	39,700	270,000
40329	CHERRY VALLEY	PRODUCT	Y	74.3	16.0		39,700	270,000
24310	CHESAPEAKE	PRODUCT	Y	64.4	16.0	71	50,000	388,000
59849	CHESAPEAKE TRADER	PRODUCT	Y	82.4	14.0	240	50,100	356,000
46082	CHESTNUT HILL	PRODUCT	Y	76.4	16.0	60	91,300	663,000
46072	CHEVRON ARIZONA	PRODUCT	Y	77.4	15.0	99	34,500	270,000
36776	CHEVRON CALIFORNIA	PRODUCT	Y	72.3	15.0	78	70,200	548,000
46070	CHEVRON COLORADO	PRODUCT	Y	76.4	15.0	99	34,500	270,000
37048	CHEVRON MISSISSIPPI	PRODUCT	Y	72.4	15.0	78	70,200	548,000
46069	CHEVRON WASHINGTON	PRODUCT	Y	76.2	15.0	99	39,600	270,000
57934	COAST RANGE	PRODUCT	Y	81.2	15.0	114	40,000	300,000
21361	COASTAL MANATEE	PRODUCT	Y	61.4	17.0	127	30,800	250,000
17269	COLORADO	PRODUCT	Y	44.1	14.0	121	30,400	258,000
2551	CONCHO	PRODUCT	Y	45.2	14.0	198	32,700	280,000
38873	CORONADO	PRODUCT	Y	73.4	16.0	200	39,700	270,000

NISC NO	VESSEL NAME	SHIP TYPE	MILUSE YES OR NO	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CAPACITY BBLS
20015	COVE LEADER	PRODUCT	Y	59.4	17.0	348	67,400	469,000
4443	COVE LIBERTY	PRODUCT	Y	54.2	16.0	238	69,300	506,000
19742	COVE TRADER	PRODUCT	Y	59.3	16.0	200	46,400	395,000
723	DELAWARE STAR	PRODUCT	Y	44.1	14.0	141	27,800	237,000
60265	DELAWARE TRADER	PRODUCT	Y	82.2	14.0	242	50,100	356,000
5491	EXXON BALTIMORE	PRODUCT	Y	60.3	17.0	205	51,100	409,000
31804	EXXON BATON ROUGE	PRODUCT	Y	70.1	16.0	103	75,600	637,000
4995	EXXON BOSTON	PRODUCT	Y	60.4	17.0	186	52,000	409,000
61916	EXXON CHARLESTON	PRODUCT	Y	83.4	16.0	105	40,200	370,000
47210	EXXON GALVESTON	PRODUCT	Y	70.3	12.0	87	27,300	194,000
24458	EXXON HOUSTON	PRODUCT	Y	64.2	16.0	103	67,900	576,000
5692	EXXON JAMESTOWN	PRODUCT	Y	57.2	18.0	121	39,000	312,000
5700	EXXON LEXINGTON	PRODUCT	Y	58.2	18.0	118	39,100	240,000
24774	EXXON NEW ORLEANS	PRODUCT	Y	65.2	16.0	103	67,800	571,000
32019	EXXON PHILADELPHIA	PRODUCT	Y	70.2	16.0	103	75,600	637,000
59133	EXXON PRINCETON	PRODUCT	Y	82.2	16.0	198	43,000	301,000
31215	EXXON SAN FRANCISCO	PRODUCT	Y	69.4	16.0	103	75,600	637,000
5767	EXXON WASHINGTON	PRODUCT	Y	57.2	18.0	122	40,900	321,000
62913	EXXON WILMINGTON	PRODUCT	Y	84.3	16.0	105	48,000	370,000
61151	EXXON YORKTOWN	PRODUCT	Y	83.2	15.0	195	43,000	308,000
35710	FALCON COUNTESS	PRODUCT	Y	71.2	16.0	179	37,300	303,000
33845	FALCON DUCHESS	PRODUCT	Y	71.2	16.0	138	37,300	303,000
33346	FALCON LADY	PRODUCT	Y	71.3	16.0	160	37,300	303,000
36198	FALCON PRINCESS	PRODUCT	Y	72.2	16.0	179	37,300	303,000
5082	FREDERICKSBURG	PRODUCT	Y	58.2	18.0	72	39,000	311,000
41192	GOLDEN ENDEAVOR	PRODUCT	Y	74.4	16.0	223	91,800	562,000
32023	GOLDEN GATE	PRODUCT	Y	70.2	15.0	181	62,100	513,000
42254	GOLDEN MONARCH	PRODUCT	Y	75.2	16.0	220	91,400	663,000
7633	GUADALUPE	PRODUCT	Y	45.2	14.0	125	30,400	223,000
9455	KEYSTONER	PRODUCT	Y	53.4	15.0	60	18,400	149,000
7154	KING	PRODUCT	Y	57.2	17.0	161	34,700	275,000
46083	KITTANNING	PRODUCT	Y	77.1	16.0	220	91,300	663,000
7160	KNIGHT	PRODUCT	Y	58.2	17.0	161	34,700	275,000
6176	LION OF CALIFORNIA	PRODUCT	Y	54.3	14.0	168	16,200	131,000
21234	MOBIL MERIDIAN	PRODUCT	Y	61.3	17.0	160	49,200	387,000
19710	MONTRACHET	PRODUCT	Y	59.3	17.0	120	30,800	250,000
46094	MORMACSKY	PRODUCT	Y	77.1	16.0	140	39,200	286,000
46092	MORMACSTAR	PRODUCT	Y	75.4	16.0	140	39,200	286,000
46093	MORMACSUN	PRODUCT	Y	76.2	16.0	140	39,200	286,000
7321	NECHES	PRODUCT	Y	58.4	17.0	140	34,900	281,000
56544	NEW YORK SUN	PRODUCT	Y	80.4	15.0	120	30,900	251,000
31056	OMI CHAMPION	PRODUCT	Y	69.4	16.0	130	37,900	334,000
30948	OMI CHARGER	PRODUCT	Y	69.4	16.0	130	37,800	328,000
58480	OMI HUDSON	PRODUCT	Y	81.4	15.0	230	49,500	360,000
30356	OMI LEADER	PRODUCT	Y	69.2	17.0	120	37,800	328,000
30354	OMI WABASH	PRODUCT	Y	69.2	16.0	120	37,900	297,000
30009	OMI WILLAMETTE	PRODUCT	Y	69.1	16.0	120	37,900	297,000
32848	OVERSEAS ALASKA	PRODUCT	Y	70.4	16.0	160	62,000	395,000
33243	OVERSEAS ARCTIC	PRODUCT	Y	71.2	16.0	160	62,000	395,000
46088	OVERSEAS CHICAGO	PRODUCT	Y	77.2	16.0	220	90,600	663,000
38749	OVERSEAS JUNEAU	PRODUCT	N	73.4	16.0	230	120,500	940,000
21455	OVERSEAS NATALIE	PRODUCT	Y	61.4	16.0	220	69,000	598,000
46090	OVERSEAS NEW YORK	PRODUCT	Y	77.4	16.0	220	90,400	663,000

NISC NO	VESSEL NAME	SHIP TYPE	MILUSE YES OR NO	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CAPACITY BBLS
46089	OVERSEAS OHIO	PRODUCT	Y	77.4	16.0	220	90,600	663,000
46091	OVERSEAS WASHINGTON	PRODUCT	Y	78.1	16.0	220	90,500	663,000
5687	PECOS	PRODUCT	Y	50.1	16.0	150	28,700	233,000
22432	PENNSYLVANIA TRADER (FL)	PRODUCT	Y	62.4	15.0	150	34,100	269,000
57709	PHILADELPHIA SUN	PRODUCT	Y	81.3	15.0	120	34,100	241,000
1515	POMEROL	PRODUCT	Y	58.3	15.0	150	30,300	246,000
60971	POTOMAC TRADER	PRODUCT	Y	83.2	14.0	150	50,100	356,000
19835	PRIDE II	PRODUCT	Y	59.3	17.0	120	29,200	250,000
8483	SABINE	PRODUCT	Y	57.3	15.0	30	34,900	275,000
35122	SANSINENA II	PRODUCT	Y	71.3	16.0	140	70,500	549,000
58458	SIERRA MADRE	PRODUCT	Y	81.4	16.0	90	40,000	300,000
20008	SOLAR	PRODUCT	Y	59.4	17.0	120	29,200	250,000
29517	SPIRIT OF LIBERTY	PRODUCT	Y	68.3	16.0	120	38,200	326,000
20417	SPRAY	PRODUCT	Y	60.3	17.0	120	29,200	250,000
3923	ST EMILION	PRODUCT	Y	56.3	16.0	140	32,800	268,000
46106	STUYVESANT	PRODUCT	N	77.3	17.0	190	224,700	1,665,000
1513	SYOSSET	PRODUCT	Y	58.2	15.0	150	30,300	246,000
3016	TEXACO CALIFORNIA	PRODUCT	Y	54.1	19.0	140	42,000	359,000
4293	TEXACO CONNECTICUT	PRODUCT	Y	53.4	19.0	140	42,000	359,000
6164	TEXACO FLORIDA	PRODUCT	Y	56.3	19.0	140	42,000	359,000
23697	TEXACO GEORGIA	PRODUCT	Y	64.1	17.0	170	25,200	208,000
23304	TEXACO MARYLAND	PRODUCT	Y	63.3	16.0	170	26,600	208,000
22431	TEXACO MASSACHUSETTS (FL)	PRODUCT	Y	63.1	17.5	170	208,000	208,000
11633	TEXACO MINNESOTA	PRODUCT	Y	43.2	13.0	130	26,700	218,000
11691	TEXACO MISSISSIPPI	PRODUCT	Y	44.1	13.0	120	26,600	218,000
24875	TEXACO MONTANA	PRODUCT	Y	65.2	17.0	120	26,600	212,000
12318	TEXACO NEW YORK	PRODUCT	Y	53.3	15.0	140	42,000	359,000
24245	TEXACO RHODE ISLAND (FL)	PRODUCT	Y	64.3	17.0	110	25,400	208,000
7168	TROPIC SUN	PRODUCT	Y	57.4	17.0	140	34,700	275,000
52446	U S T ATLANTIC	PRODUCT	N	79.1	15.0	260	396,700	3,000,000
54342	U S T PACIFIC	PRODUCT	N	79.4	16.0	260	398,100	3,000,000
26703	VALLEY FORGE	PRODUCT	Y	66.4	16.0	70	37,900	329,000
41000	WILLIAMSBURGH	PRODUCT	N	74.4	17.0	170	225,100	1,655,000
34043	ADMIRALTY BAY	PRODUCT	Y	71.2	17.0	100	80,600	611,000
31358	AMERICA SUN	PRODUCT	Y	69.4	18.0		80,700	595,000
24290	COPPER MOUNTAIN	PRODUCT	Y	64.3	16.0	205	71,800	535,000
32042	GLACIER BAY	PRODUCT	Y	70.2	17.0	81	81,000	612,000
14614	LOUISIANA BRIMSTONE EQ	SULPHUR	N	43.0	14.0	50	24,200	89,000
10575	LOUISIANA SULPHUR EQ	SULPHUR	N	43.0	15.0	120	16,400	141,000
10687	MARINE DUVAL	SULPHUR	N	44.2	14.0	180	24,700	
13219	MARINE FLORIDIAN	SULPHUR	N	44.4	14.0	180	24,800	
5644	MARINE TEXAN	SULPHUR	N	45.4	14.0	220	23,400	

MSC CHARTERED TANKERS:

46646	BRAVADO	COASTAL	Y	77.3	12.0		4,300	28,000
46116	COURIER	PRODUCT	Y	77.1	16.0	120	35,100	308,000
61987	FALCON CHAMPION	PRODUCT	Y	84.1	16.0	270	33,900	224,000
61437	FALCON LEADER	PRODUCT	Y	83.3	16.0	270	33,500	224,000
64495	GUS W DARNELL	PRODUCT	Y	85.3	16.0	120	30,000	238,000

NISC NO	VESSEL NAME	SHIP TYPE	MII YES
1214	LAWRENCE W GRANELLA	PRODUCT	
29115	OVERSEAS ALICE	PRODUCT	
29511	OVERSEAS VALDEZ	PRODUCT	
29920	OVERSEAS VIVIAN	PRODUCT	
46113	PATRIOT	PRODUCT	
64258	PAUL BUCK	PRODUCT	
46114	RANGER	PRODUCT	
476	RICHARD G MATTHIESEN	PRODUCT	
46115	ROVER	PRODUCT	
64846	SAMUEL L COBB	PRODUCT	
46060	SEALIFT ANTARCTIC	PRODUCT	
41335	SEALIFT ARABIAN SEA	PRODUCT	
41948	SEALIFT ARCTIC	PRODUCT	
40933	SEALIFT ATLANTIC	PRODUCT	
41334	SEALIFT CARIBBEAN SEA	PRODUCT	
42122	SEALIFT CHINA SEA	PRODUCT	
46112	SEALIFT INDIAN OCEAN	PRODUCT	
41152	SEALIFT MEDITERRANEAN	PRODUCT	
40934	SEALIFT PACIFIC	PRODUCT	

YPE	MILUSE YES OR NO	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CAPACITY BBLS
T	Y	86.2	16.0	120	30,000	239,500
T	Y	68.2	17.0	130	37,800	336,000
T	Y	68.4	17.0	120	37,800	336,000
T	Y	69.1	17.0	120	37,800	336,000
T	Y	76.2	16.0	120	35,100	308,000
T	Y	85.2	16.0	120	30,000	238,000
T	Y	76.3	16.0	120	35,100	308,000
T	Y	86.2	16.0	120	30,000	239,500
T	Y	77.1	16.0	120	35,100	308,000
T	Y	85.4	16.0	100	30,000	238,000
T	Y	75.3	16.0	160	27,200	225,000
T	Y	75.1	16.0	120	27,300	225,000
T	Y	75.2	16.0	120	27,200	225,000
T	Y	74.3	16.0	120	27,200	225,000
T	Y	75.1	16.0	120	27,200	225,000
T	Y	75.2	16.0	120	27,300	225,000
T	Y	75.3	16.0	120	27,300	225,000
T	Y	74.4	16.0	120	27,200	225,000
T	Y	74.3	16.0	120	27,300	225,000

YEAR 1987 READY RESERVE FORCE (RRF)

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT	TANKER BBLS
33552	AUSTRAL LIGHTNING	BARGE TRAN	71.2	22.5	130	29,820	29,820				34,300		
38140	CAPE FAREWELL	BARGE TRAN	73.2	22.0	150	40,400	33,330	72			43,610	2,061	
38531	CAPE FLATTERY	BARGE TRAN	73.3	22.0	150	40,572	33,472	72			43,610	2,061	
33242	CAPE FLORIDA	BARGE TRAN	71.1	22.5	130	29,820	24,602				30,380		
36593	CAPE MAY	BARGE TRAN	72.3	20.0	160	38,410	31,688				37,183		
35570	CAPE MENDOCINO	BARGE TRAN	72.2	22.0	160	38,410	31,688				37,183		
36726	CAPE MOHICAN	BARGE TRAN	73.1	20.0	160	38,410	31,688				37,183		
8311	ADVENTURER	BREAKBULK	60.4	18.5	130	10,986	9,063			10,000	14,375		
20408	AGENT	BREAKBULK	61.1	18.5	130	11,087	9,148			10,000	14,375		
20634	AIDE	BREAKBULK	61.2	18.5	130	11,021	9,092			10,000	14,375		
622	AMBASSADOR	BREAKBULK	60.3	18.5	130	10,986	9,063			10,000	14,375		
700	AMERICAN VICTORY	BREAKBULK	45.2	15.8	240	10,725	8,848			6,611	11,330		
20984	BANNER	BREAKBULK	61.4	18.5	260	12,629	10,419			10,000	17,675		
21451	CALIFORNIA	BREAKBULK	62.1	20.0	253	14,349	11,838			12,000	17,467		
22123	CAPE ALAVA	BREAKBULK	62.3	20.0	173	12,728	10,501			12,500	16,050		
22124	CAPE ALEXANDER	BREAKBULK	62.4	20.0	173	12,728	10,501			12,500	16,050		
22380	CAPE ANN	BREAKBULK	62.4	20.0	173	12,728	10,501			12,500	16,050		
22540	CAPE ARCHWAY	BREAKBULK	63.1	20.0	173	12,728	10,501			12,500	16,050		
22542	CAPE AVINOF	BREAKBULK	63.2	20.0	173	12,728	10,501			12,500	16,050		
26482	CAPE BLANCO	BREAKBULK	66.3	20.0	195	14,662	12,096			12,022	18,725		
27604	CAPE BON	BREAKBULK	67.3	20.0	195	14,662	12,096			12,022	18,725		
27125	CAPE BORDA	BREAKBULK	67.2	20.0	195	14,662	12,096			12,022	18,725		
26922	CAPE BOVER	BREAKBULK	67.1	20.0	195	14,662	12,096			12,022	18,725		
27454	CAPE BRETON	BREAKBULK	67.2	20.0	195	14,662	12,096			12,022	18,725		
22959	CAPE CANAVERAL	BREAKBULK	64.1	18.0	184	12,684	10,464			9,901	13,825		
22956	CAPE CANSO	BREAKBULK	63.3	18.0	184	12,684	10,464			9,901	13,825		
22958	CAPE CARTHAGE	BREAKBULK	63.4	18.0	184	12,622	10,464			9,901	13,825		
22957	CAPE CATOCHE	BREAKBULK	63.4	18.0	184	12,684	10,464			9,901	13,825		
22541	CAPE CHALMERS	BREAKBULK	63.2	18.0	184	11,293	9,317			9,901	13,700		
22961	CAPE CHARLES	BREAKBULK	63.3	18.0	184	12,684	10,464			9,901	13,825		
22962	CAPE CLEAR	BREAKBULK	63.4	18.0	184	12,684	10,464			9,901	13,825		
22975	CAPE COD	BREAKBULK	63.1	18.0	184	12,684	10,464			9,901	13,700		
3519	CATAWBA VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
22157	COURIER	BREAKBULK	62.4	18.5	90	12,705	10,482			10,000	17,675		
28999	DEL MONTE	BREAKBULK	68.2	18.6	150	13,039	10,757			10,000	16,175		
29397	DEL VALLE	BREAKBULK	68.4	18.5	150	13,039	10,757			10,000	16,175		
29670	DEL VIENTO	BREAKBULK	68.4	18.5	150	13,039	10,757			10,000	16,175		
22970	GULF BANKER	BREAKBULK	64.2	18.0	171	11,367	9,378			9,901	13,775		
21905	GULF FARMER	BREAKBULK	64.2	18.0	171	11,367	9,378			9,901	13,775		
24471	GULF MERCHANT	BREAKBULK	65.1	18.0	171	11,368	9,379			9,901	13,775		
22683	GULF SHIPPER	BREAKBULK	64.4	18.0	171	11,368	9,379			9,901	13,775		
24255	GULF TRADER	BREAKBULK	64.3	18.0	171	11,368	9,379			9,901	13,775		
7389	HATTIESBURG VICTORY	BREAKBULK	45.3	15.8	240	10,755	8,873			6,611	11,330		
20764	LAKE	BREAKBULK	61.2	18.0	140	12,476	10,293			9,000	13,100		
21281	NORTHERN LIGHT	BREAKBULK	61.3	18.0	140	12,537	10,343			9,000	12,000		

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT. (RO-RO)	SQ.FT.	MEAS TONS	MEAS TONS CONT	TANKER BBLS
22663	PIONEER COMMANDER	BREAKBULK	63.2	21.0	120	13,535	11,166			13,226	16,075		
22833	PIONEER CONTRACTOR	BREAKBULK	63.3	21.0	120	13,535	11,166			13,226	16,075		
22964	PIONEER CRUSADER	BREAKBULK	63.4	21.0	120	13,540	11,171			13,226	15,550		
20474	PRIDE	BREAKBULK	60.3	18.0	140	12,402	10,232			9,000	13,100		
22392	SANTA ANA	BREAKBULK	63.1	20.0	140	14,376	11,860			12,000	18,450		
27586	SANTA BARBARA	BREAKBULK	67.3	20.0	120	12,699	10,477			13,500	18,775		
26751	SANTA CLARA	BREAKBULK	66.4	20.0	120	12,624	10,415			13,500	18,775		
26495	SANTA CRUZ	BREAKBULK	66.3	20.0	120	12,631	10,421			13,500	18,775		
27344	SANTA ELENA	BREAKBULK	67.2	20.0	120	12,678	10,459			13,500	18,775		
27983	SANTA ISABEL	BREAKBULK	67.3	20.0	120	12,677	10,459			13,500	18,775		
26083	SANTA LUCIA	BREAKBULK	66.2	20.0	120	12,693	10,472			13,500	18,775		
20880	SCAN	BREAKBULK	61.2	18.0	140	12,483	10,298			9,000	13,100		
21877	SOUTHERN CROSS	BREAKBULK	62.2	18.0	140	12,519	10,328			9,000	12,000		
28328	ADM WM M CALLAGHAN	RO-RO	67.0	25.0	60	13,500	11,138		168,000				
38604	CAPE DECISION	RO-RO	73.3	21.0	194	23,865	19,689		165,000				
37001	CAPE DIAMOND	RO-RO	72.3	22.3	179	23,725	19,573		165,000				
37964	CAPE DOMINGO	RO-RO	73.1	21.0	179	23,725	19,573		165,000				
37760	CAPE DOUGLAS	RO-RO	73.0	21.0	194	22,880	18,876		165,000				
37036	CAPE DUCATO	RO-RO	72.3	22.0	194	23,350	19,264		165,000				
32938	CAPE EDMONT	RO-RO	71.0	19.0	173	20,225	16,686		198,000				
52883	CAPE HENRY	RO-RO	79.2	20.0	174	31,524	26,007		185,000				
53258	CAPE HORN	RO-RO	79.3	21.0	178	31,298	25,821		220,000				
53113	CAPE HUDSON	RO-RO	79.2	21.0	178	31,427	25,927		220,000				
46063	CAPE ISABEL	RO-RO	76.4	23.0	190	20,348	16,787		153,000				
4250	COMET	RO-RO	58.1	18.0	120	10,111	8,342		85,406				
46062	JUPITER	RO-RO	76.2	23.0	100	19,172	15,817		151,000				
28595	METEOR	RO-RO	67.2	20.0	100	12,326	10,169		99,270				
17366	MAINE	SEATRAIN	44.0	16.0	120	12,312	10,157		68,000				
11676	WASHINGTON	SEATRAIN	44.2	16.5	120	12,292	10,141		68,000				
25635	GEM STATE	T-ACS	66.1	20.0	160	13,600	11,220	326				9,332	
25380	GRAND CANYON STATE	T-ACS	65.4	20.0	160	17,075	14,087	839				24,016	
26045	KEYSTONE STATE	T-ACS	66.2	20.0	160	13,600	11,220	294				8,416	
55890	ALATNA	PRODUCT	57.3	12.0	100	4,933	4,736						50,000
650	AMERICAN EXPLORER	PRODUCT	59.4	20.0	140	24,226	23,257						180,000
3701	CHATTAHOOCHEE	PRODUCT	57.4	12.0	100	4,933	4,736						50,000
11326	MAUMEE	PRODUCT	56.4	18.0	180	26,875							187,000
12470	NODAWAY	PRODUCT	45.3	10.0	60	4,000							50,000
13818	POTOMAC	PRODUCT	57.1	18.0	180	27,467							200,000
19631	SHOSHONE	PRODUCT	57.2	18.0	180	26,943							187,000
19000	YUKON	PRODUCT	57.2	18.0	180	26,943							187,000
22969	PATRIOT STATE	PASSENGER	64.2	20.0	85	8,759	4,380				5,700		

YEAR 1987 NATIONAL DEFENSE RESERVE FLEET (NDRF)

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X 00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT (RO-RO)	SQ.FT.	MEAS TONS	MEAS TON CONT	TANKER BBLS
55816	BENJAMIN HARRISON	BARGE TRAN	80.3	22.0	150	45,795	37,781				43,610		
55928	EDWARD RUTLEDGE	BARGE TRAN	81.4	22.0	150	45,795	37,781				43,610		
102	ADELPHI VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
367	ALBION VICTORY	BREAKBULK	45.1	15.8	240	10,584	8,732			6,611	11,330		
490	ALFRED VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
534	ALLEGHENY VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
630	AMARILLO VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
22327	AMERICAN CHALLENGER	BREAKBULK	62.4	21.0	120	13,532	11,164			13,226	16,075		
22264	AMERICAN CHARGER	BREAKBULK	62.4	21.0	120	13,566	11,192			13,226	16,075		
22832	AMERICAN CHIEFTAIN	BREAKBULK	63.2	21.0	120	13,544	11,174			13,226	16,075		
22664	AMERICAN CORSAIR	BREAKBULK	63.2	21.0	120	13,535	11,166			13,226	16,075		
24345	AMERICAN RACER	BREAKBULK	64.4	21.0	170	13,264	10,943			12,500	13,425		
24537	AMERICAN RANGER	BREAKBULK	65.2	21.0	170	13,264	10,943			12,000	11,508		
25872	AMERICAN RELIANCE	BREAKBULK	65.2	21.0	170	13,264	10,943			12,500	13,425		
794	ANCHORAGE VICTORY	BREAKBULK	41.0	15.8	240	10,681	8,812			6,611	11,330		
1359	ASBURY VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
1893	BARNARD VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
1922	BARRE VICTORY	BREAKBULK	45.3	15.8	240	10,584	8,732			6,611	11,330		
1961	BATTLE CREEK VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
20883	BAY	BREAKBULK	61.4	18.0	121	12,629	10,419			10,000	16,575		
1991	BEATRICE VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
2043	BELGIUM VICTORY	BREAKBULK	44.2	17.0	200	10,678	8,809			6,463	11,330		
2183	BEREA VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
2204	BERKELEY VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
2242	BESSEMER VICTORY	BREAKBULK	45.3	15.8	240	10,721	8,845			6,611	11,330		
2600	BRAZIL VICTORY	BREAKBULK	44.2	17.0	200	10,697	8,825			6,463	11,330		
2847	BUCKNELL VICTORY	BREAKBULK	45.1	15.8	240	10,858	8,958			6,611	11,330		
21709	BUILDER	BREAKBULK	62.1	18.5	121	12,485	10,300			10,000	16,575		
21843	BUYER	BREAKBULK	62.2	18.5	121	12,529	10,336			10,000	16,575		
3201	CANTON VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
1286	CAPE	BREAKBULK	60.4	18.0	140	12,466	10,284			9,000	13,075		
24519	CAPE GASPE	BREAKBULK	65.1	21.0	170	13,264	10,943			12,500	17,175		
25402	CAPE GEORGIA	BREAKBULK	65.3	21.0	170	13,264	10,943			12,500	17,175		
21879	CAPE JOHN	BREAKBULK	62.2	20.0	140	14,361	11,848			12,000	18,450		
21946	CAPE JOHNSON	BREAKBULK	62.4	20.0	140	14,467	11,935			12,000	18,700		
22125	CAPE JUBY	BREAKBULK	62.3	20.0	140	14,321	11,815			12,000	18,450		
21667	CAPE JUNCTION	BREAKBULK	62.2	20.0	140	14,389	11,871			12,000	18,450		
3447	CARROLL VICTORY	BREAKBULK	44.3	17.0	200	10,712	8,837			6,463	11,330		
2942	CCNY VICTORY	BREAKBULK	45.3	15.8	240	10,584	8,732			6,611	11,330		
3570	CENTRAL VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
3920	CITADEL VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
4125	CLARKSVILLE VICTORY	BREAKBULK	45.1	15.8	240	10,900	8,993			6,611	11,330		
22482	COMMERCE	BREAKBULK	63.2	18.5	130	12,525	10,333			10,000	16,675		
4385	CORNELL VICTORY	BREAKBULK	45.2	15.8	240	10,714	8,839			6,611	11,330		
4432	COUNCIL BLUFFS VICTORY	BREAKBULK	45.3	15.8	240	10,825	8,931			6,611	11,330		
13851	CRACKER STATE MARINER	BREAKBULK	54.2	20.0	180	13,409	11,062			13,250	15,800		

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X 00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT (RO-RO)	SQ.FT.	MEAS TONS	MEAS TON TANKER CONT	BBLS
4687	DE PAUW VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
4750	DENISON VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
4977	DRAKE VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
5022	DUKE VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
5053	DURANGO VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
5087	EARLHAM VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
5385	ELKO VICTORY	BREAKBULK	45.4	15.8	240	10,681	8,812			6,611	11,330		
5405	ELMIRA VICTORY	BREAKBULK	44.2	17.0	200	10,669	8,802			6,463	11,330		
5505	ENID VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
6536	GAINESVILLE VICTORY	BREAKBULK	44.3	17.0	200	10,712	8,837			6,463	11,330		
20763	GLEN	BREAKBULK	61.2	18.0	140	12,391	10,223			9,000	13,100		
7038	GREAT FALLS VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
7048	GREELEY VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
7076	GRETNA VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
7100	GROVE CITY VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
7269	HALAULA VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
7286	HAMILTON VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
7311	HANNIBAL VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
7373	HARVARD VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
7733	HIGH POINT VICTORY	BREAKBULK	45.3	15.8	240	10,584	8,732			6,611	11,330		
7807	HOBART VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
7904	HOPE VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
8000	HUNTER VICTORY	BREAKBULK	45.2	15.8	200	10,681	8,812			6,611	11,330		
8972	JOPLIN VICTORY	BREAKBULK	44.2	17.0	240	10,702	8,829			6,463	11,330		
10029	LAFAYETTE VICTORY	BREAKBULK	44.2	15.8	240	10,681	8,812			6,611	11,330		
10046	LAHAINA VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
10069	LAKEWOOD VICTORY	BREAKBULK	44.4	15.8	240	10,681	8,812			6,611	11,330		
10093	LANE VICTORY	BREAKBULK	45.2	15.8	240	10,719	8,843			6,611	11,330		
10112	LAREDO VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
10122	LAS VEGAS VICTORY	BREAKBULK	44.4	15.8	240	10,681	8,812			6,611	11,330		
10377	LINDENWOOD HAVEN VICTORY	BREAKBULK	44.0	15.8	240	10,915	9,005			6,611	11,330		
10476	LOMA VICTORY	BREAKBULK	45.0	17.0	200	10,636	8,775			6,463	11,330		
10587	LOYOLA VICTORY	BREAKBULK	45.0	15.8	240	10,681	8,812			6,611	11,330		
10689	LYNN VICTORY	BREAKBULK	45.0	15.8	240	10,584	8,732			6,611	11,330		
10837	MALDEN VICTORY	BREAKBULK	44.4	15.8	240	10,584	8,732			6,611	11,330		
10882	MANDERSON VICTORY	BREAKBULK	45.4	15.8	240	10,681	8,812			6,611	11,330		
11262	MASSILLON VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
11344	MAYFIELD VICTORY	BREAKBULK	44.4	15.8	240	10,631	8,771			6,611	11,330		
11457	MERCER VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
11471	MEREDITH VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
	MIRFAK	BREAKBULK	57.0	13.0	280	1,850					2,325		
11995	MUHLENBERG VICTORY	BREAKBULK	45.3	15.8	240	10,584	8,732			6,611	11,330		
12170	NASHUA VICTORY	BREAKBULK	45.3	15.8	240	10,584	8,732			6,611	11,330		
12331	NEWCASTLE VICTORY	BREAKBULK	44.4	15.8	240	10,681	8,812			6,611	11,330		
12703	OBERLIN VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
12712	OCALA VICTORY	BREAKBULK	45.1	15.8	240	10,584	8,732			6,611	11,330		
12713	OCCIDENTAL VICTORY	BREAKBULK	45.2	15.8	240	10,725	8,848			6,611	11,330		
13026	OSHKOSH VICTORY	BREAKBULK	45.3	15.8	240	10,755	8,873			6,611	11,330		
13133	PACIFIC VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
13186	PAN AMERICAN VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
13564	PINE BLUFF VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
22963	PIONEER CONTENDER	BREAKBULK	63.2	21.0	120	13,540	11,171			13,226	15,550		
22127	PIONEER MOON	BREAKBULK	62.3	21.0	130	13,583	11,206			13,226	16,075		

NISC NO	VESSEL NAME	SHIP TYPE	YEAR BUILT	SPEED	RGE (X 00)	DWT(L/T)	CARGO DWT(S/T)	TEU	SQ.FT (RO-RO)	SQ.FT.	MEAS TONS	MEAS TON CONT	TANKER BBLS
13919	PRINCETON VICTORY	BREAKBULK	45.1	15.8	240	10,681	8,812			6,611	11,330		
14044	PURDUE VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
10489	QUEENS VICTORY	BREAKBULK	45.2	15.8	240	10,725	8,848			6,611	11,330		
14228	RED OAK VICTORY	BREAKBULK	45.4	15.8	240	10,681	8,812			6,611	11,330		
14354	RICE VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
14386	RIDER VICTORY	BREAKBULK	45.2	15.8	240	10,714	8,839			6,611	11,330		
14773	ROSWELL VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
15183	SAN MATEO VICTORY	BREAKBULK	45.3	15.8	240	10,681	8,812			6,611	11,330		
15556	SELMA VICTORY	BREAKBULK	44.3	17.0	200	10,712	8,837			6,463	11,330		
15660	SHARON VICTORY	BREAKBULK	44.3	17.0	200	10,712	8,837			6,463	11,330		
15904	SIOUX FALLS VICTORY	BREAKBULK	45.1	15.8	240	10,699	8,827			6,611	11,330		
16133	SOUTHWESTERN VICTORY	BREAKBULK	45.2	15.8	240	10,725	8,848			6,611	11,330		
14944	ST AUGUSTINE VICTORY	BREAKBULK	45.3	15.8	240	10,584	8,732			6,611	11,330		
16646	SWARTHMORE VICTORY	BREAKBULK	45.2	15.8	240	10,882	8,978			6,611	11,330		
17645	TUCSON VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
17654	TULANE VICTORY	BREAKBULK	45.2	15.8	240	10,681	8,812			6,611	11,330		
17930	VANDERBILT VICTORY	BREAKBULK	45.2	15.8	240	10,714	8,839			6,611	11,330		
18466	WAYNE VICTORY	BREAKBULK	45.2	15.8	240	10,719	8,843			6,611	11,330		
18538	WHITTIER VICTORY	BREAKBULK	45.3	15.8	240	10,719	8,843			6,611	11,330		
18748	WINTHROP VICTORY	BREAKBULK	45.2	15.8	240	10,725	8,848			6,611	11,330		
20893	LINCOLN	CONT-BB	61.2	20.0	140	14,244	11,751	244		13,000	8,815	6,985	
8604	PRESIDENT	CONT-BB	61.3	20.0	140	14,244	11,751	244		13,000	8,815	6,985	
11679	OHIO	SEATRAIN	44.1	16.0	120	12,293	10,142		68,000				
30503	CORNHUSKER STATE	T-ACS	69.2	20.0	180	16,343	13,483	1,070				30,629	
29437	FLICKERTAIL STATE	T-ACS	69.1	20.0	180	16,343	13,483	1,070				30,629	
37313	GOPHER STATE	T-ACS	73.1	20.0	120	12,468	10,286	1,070				30,629	

TANKERS:

7167	AMERICAN OSPREY	PRODUCT	58.1	16.5	161	34,723							275,000
2603	BRAZOS	PRODUCT	45.2	14.5	125	23,969							204,000
3612	CHANCELLORSVILLE	PRODUCT	43.4	16.5	88	25,194							212,000
1580	CONNECTICUT	PRODUCT	58.3	17.8	228	38,240							280,000
5678	EXXON GETTYSBURG	PRODUCT	57.1	18.0	70	39,029							312,000
5671	FLORENCE	PRODUCT	54.1	16.0	150	28,518							233,000
11717	MEACHEM	PRODUCT	57.3	16.0	120	31,145							250,000
11688	MISSION SANTA YNEZ	PRODUCT	44.1	14.0	98	17,056							139,000
11720	NAECO	PRODUCT	57.3	16.0	106	31,145							250,000
15405	SAUGATUCK	PRODUCT	42.4	14.0	110	16,500							139,000

YEAR 1987 U.S. FLAG BULK AND PASSENGER FLEETS

NAME	TYPE	SPEED	RANGE (X00)	DEADWEIGHT
ALTAIR	BULK	15.5	200	63,139
ARCHON	BULK	15.0	200	63,700
ARION	BULK	15.5	200	63,139
ASPEN	BULK	15.5	200	63,139
AURORA	BULK	15.0	200	63,139
BETTY WOOD	BULK ITB	16.0		23,700
CALRICE TRANSPORT	BULK	16.0		25,400
ENERGY INDEPENDENCE	COLLIER	15.0	90	32,846
EROL BEKER	BULK ITB	10.0		21,500
GOLDEN PHOENIX	BULK OIL	13.5	180	128,000
INGER	BULK	14.5	160	23,510
JADE PHOENIX	BULK OIL	13.5	180	128,000
JAMIE A. BAXTER	BULK ITB	12.5		24,400
MARINE PRINCESS	BULK	15.5		52,565
MOKU PAHU	BULK ITB	16.0		25,900
OMI MISSOURI	BULK	15.0	150	45,500
OMI SACRAMENTO	BULK	15.0	150	48,890
OVERSEAS HARIETTE	BULK	15.0	160	25,541
OVERSEAS MARILYN	BULK	15.0	160	25,541
PRIDE OF TEXAS	BULK	15.0	110	34,500
SEADRIFT	BULK OIL	10.9	140	16,576
SPIRIT OF TEXAS	BULK	15.0	150	36,476
STAR OF TEXAS	BULK	15.0	150	36,476
SUGAR ISLANDER	BULK	15.0		29,648
ULTRASEA	OBO	16.5	180	82,200
ULTRAMAR	OBO	16.5	180	82,200
CONSTITUTION	PASSENGER	25.0	130	7,108
INDEPENDENCE	PASSENGER	25.0	130	7,136
MONTEREY	PASSENGER	20.0	130	6,454
UNITED STATES	PASSENGER	33.0	100	12,810

YEAR 1987 EUSC FLEET
(MILITARILY USEFUL SHIPS ONLY)

DRY CARGO:

NISC NO	NAME	FLAG	CATEGORY	YEAR BUILT	SPEED	DWT
30867	ACADIA FOREST	LI	BARGE TRAN	69	19	49,047
32003	ATLANTIC FOREST	LI	BARGE TRAN	70	18	49,071
35735	RHINE FOREST	LI	BARGE TRAN	72	18	44,094
49107	SPRUCE	LI	BARGE TRAN	75	10	8,043
55370	HARBEL CUTLASS	LI	BREAKBULK	80	15	11,548
57230	HARBEL TAPPER	LI	BREAKBULK	81	15	11,499
32772	ARGUS CARRIER	LI	CAR CARRIER	70	18	5,920
	ARGUS EXPLORER	LI	CAR CARRIER	75	16	20,515
	ARGUS TRAVELER	LI	CAR CARRIER	75	16	20,515
45038	SUNBELT DIXIE	LI	CAR CARRIER	78	16	12,730
	OAHU	PA	CONT	83	15	10,823
	PAGAI	PA	CONT	80	15	10,986
	PANAREA I	PA	CONT	80	15	10,986
62742	SANDYS BAY	LI	CONT-SS40	84	16	11,894
60842	SEAWARD BAY	PA	CONT-SS40	83	16	11,875
61295	SHELLY BAY	PA	CONT-SS40	83	16	11,876
62154	SOMMERS BAY	PA	CONT-SS40	83	16	11,893
29759	CONDATA	HO	REFRIGERATOR	68	20	10,023
28501	CORAL REEFER	PA	REFRIGERATOR	68	19	6,061
24294	ISADORE HECHT	PA	REFRIGERATOR	64	19	6,198
31314	INAGUA PILOT	PA	RO-RO	69	14	3,085
51955	INAGUA TIDE	PA	RO-RO	78	13	4,734

PASSENGER:

1185	BERMUDA STAR	PA	PASSENGER	58	21	8,568
	CANADA STAR	PA	PASSENGER	58	23	5,050
5488	CARNIVALE	PA	PASSENGER	56	19	8,772
	CELEBRATION	LI	PASSENGER	86	19	6,453
21316	FESTIVALE	PA	PASSENGER	61	23	16,343
64294	HOLIDAY	PA	PASSENGER	85	22	7,073
1730	JUBILEE	LI	PASSENGER	86	19	6,351
2760	MARDI GRAS	PA	PASSENGER	61	20	9,401
5982	ROYALE	PA	PASSENGER	58	20	5,582
22047	STARSHIP OCEANIC	PA	PASSENGER	65	20	8,738
58417	TROPICALE	LI	PASSENGER	81	19	6,549

NISC NO	NAME	FLAG	CATEGORY	YEAR BUILT	SPEED	DWT
TANKERS:						
27266	ARMAND HAMMER	LI	CHEMICAL	67	15	60,763
61731	MOBIL COURAGE	LI	CHEMICAL	83	15	39,776
57495	NORDIC SUN	LI	CHEMICAL	81	14	19,980
61153	OWL TRANSPORTER	LI	CHEMICAL	83	15	39,742
62126	PETROS	LI	CHEMICAL	84	15	39,724
36465	AFRAN ZENITH	LI	CRUDE	72	16	96,716
58333	ALDEN W CLAUSEN	LI	CRUDE	81	15	35,587
30497	AMOCO BALTIMORE	LI	CRUDE	69	15	79,314
29204	AMOCO BRISBANE	LI	CRUDE	68	16	73,994
28615	AMOCO CREMONA	LI	CRUDE	68	15	73,979
31538	AMOCO SAVANNAH	LI	CRUDE	70	16	78,680
31779	AMOCO TEXAS CITY	LI	CRUDE	70	16	78,696
30318	AMOCO YORKTOWN	LI	CRUDE	69	16	78,314
45380	COROLLA	PA	CRUDE	75	15	81,552
38775	ESSO ALBANY	LI	CRUDE	73	15	23,694
45110	ESSO CORAL GABLES	LI	CRUDE	75	15	38,691
58338	GEO H WEYERHAEUSER	BA	CRUDE	81	15	53,904
53264	KENNETH E HILL	BA	CRUDE	79	16	43,428
	KENTUCKY	PA	CRUDE	81	15	83,529
45379	MAJESTIC PRIDE	PA	CRUDE	75	15	40,633
38806	MOBIL NAVIGATOR	LI	CRUDE	73	16	32,590
38305	OCEAN VOYAGER	LI	CRUDE	73	16	72,347
55327	PHILLIPS ARKANSAS	LI	CRUDE	80	16	54,026
53558	PHILLIPS MEXICO	LI	CRUDE	79	15	54,057
54491	PHILLIPS OKLAHOMA	LI	CRUDE	79	15	54,050
54322	PHILLIPS VENEZUELA	LI	CRUDE	79	15	54,049
59750	SAMUEL B ARMACOST	BA	CRUDE	82	15	35,607
56669	VENUS V	PA	CRUDE	81	14	97,536
57074	WEST VIRGINIA	PA	CRUDE	81	16	83,529
53811	WILLIAM E MUSSMAN	LI	CRUDE	79	16	81,273
53111	ATLANTIA	LI	TANKER	79	14	97,124
45231	BRAE TRADER	LI	TANKER	75	16	89,730
	BRYL	LI	TANKER	85	15	83,000
57325	CANOPUS	LI	TANKER	81	15	31,309
57754	CARLA A HILLS	LI	TANKER	81	15	35,596
60557	CHEVRON PACIFIC	LI	TANKER	83	15	34,950
36427	CONASTOGA	LI	TANKER	72	16	29,931
37585	CORSICANA	LI	TANKER	73	15	29,931
	DIANE	LI	TANKER	86	14	62,750
	ELAINE	LI	TANKER	86	15	83,100
28893	ESSO BANGKOK	LI	TANKER	68	14	22,755
40340	ESSO BAYONNE	LI	TANKER	74	15	29,634
47798	ESSO BAYWAY	LI	TANKER	78	16	50,915
29814	ESSO BOMBAY	BA	TANKER	68	14	22,755
60415	ESSO KAOHSIUNG	BA	TANKER	83	15	88,649
40058	ESSO MELBOURNE	LI	TANKER	74	15	29,591
59705	ESSO MEXICO	LI	TANKER	82	15	87,170
59823	ESSO NASSAU	BA	TANKER	82	15	88,429
47799	ESSO PALM BEACH	LI	TANKER	78	16	50,801
47797	ESSO PORTLAND	LI	TANKER	78	16	50,888
41187	ESSO PROVIDENCE	LI	TANKER	74	15	22,711

NISC NO	NAME	FLAG	CATEGORY	YEAR BUILT	SPEED	DWT
45460	ESSO PUERTO RICO	BA	TANKER	75	14	38,721
44149	ESSO ST PETERSBURG	LI	TANKER	74	14	22,691
38647	ESSO SHIMIZU	LI	TANKER	73	15	29,364
41881	FELANIA	LI	TANKER	75	15	32,230
42634	FELIPES	LI	TANKER	75	15	32,230
46657	FICUS	LI	TANKER	76	15	32,230
46658	FLAMMULINA	LI	TANKER	76	15	32,230
46659	FOSSARINA	LI	TANKER	76	15	32,230
46660	FOSSARUS	LI	TANKER	76	15	32,230
41031	FULGAR	LI	TANKER	74	15	32,230
42253	FUSUS	LI	TANKER	75	15	32,230
45382	GLADYS	PA	TANKER	76	15	81,564
58893	JULIE N	LI	TANKER	82	15	29,994
42257	JUPITER	LI	TANKER	75	16	18,269
46230	KANSAS GETTY	BA	TANKER	76	16	55,973
54095	KENNETH T DERR	BA	TANKER	82	15	21,582
	LOIRE	LI	TANKER	81	15	65,700
64615	LUCY	LI	TANKER	85	15	38,300
61999	MARINE RENAISSANCE	LI	TANKER	83	15	41,883
	MARY ANN	LI	TANKER	86	15	65,000
	MERCURY	LI	TANKER	74	16	32,116
	MOBIL CHALLANGE	LI	TANKER	83	15	39,371
58516	MOBIL ENDEAVOUR	LI	TANKER	81	15	38,481
58905	MOBIL ENDURANCE	LI	TANKER	82	15	38,529
38444	MOBIL ENGINEER	LI	TANKER	73	15	32,590
60959	MOBIL ENTERPRISE	LI	TANKER	83	15	38,452
40387	MOBIL MARKETER	LI	TANKER	74	15	31,102
41473	MOBIL PRODUCER	LI	TANKER	74	15	31,102
59734	MOBIL VALIANT	LI	TANKER	82	15	81,282
56097	MOBIL VANGUARD	LI	TANKER	82	15	81,283
57851	NILE	LI	TANKER	81	15	65,755
41671	NORMAN KING	LI	TANKER	75	15	90,900
43292	OTTAWA	LI	TANKER	76	15	39,732
47972	PACIFIC HUNTER	LI	TANKER	79	15	32,109
57539	PLUTO	LI	TANKER	81	17	31,303
42866	SAGUENAY	LI	TANKER	76	15	39,733
7713	SASSTOWN	LI	TANKER	43	14	30,331
	SUZANNE	LI	TANKER	80	15	65,000
	TEXACO BOGOTA	BA	TANKER	59	14	22,455
	TEXACO MAINE	PA	TANKER	59	16	44,907
	TEXACO NORGE	BA	TANKER	62	15	21,539
	TEXACO OSLO	BA	TANKER	60	14	20,028
	TEXACO SKANDINAVIA	BA	TANKER	62	15	21,539
46227	TEXAS GETTY	BA	TANKER	75	16	81,223
7717	TIMBO	LI	TANKER	43	14	30,304
56428	VESTA	PA	TANKER	80	14	97,602
57457	VOLGA	LI	TANKER	81	15	65,689
	EBRO	LI	ORE/BULK/OIL	78	15	71,882
	MARLIN	LI	ORE/BULK/OIL	77	13	15,000
	TARPON	LI	ORE/BULK/OIL	77	13	14,924

APPENDIX D

U.S. SEAGOING LABOR

APPENDIX D: U.S. Seagoing Labor

1. The data in Appendices D-1 and D-2 were developed using the following methodology:

A. SHIP TYPE and # OF SHIPS were taken directly from the source data that was summarized in Appendix C.

B. The six categories of trained seamen and the total billets for each ship type were derived from Seamen's Employment Analysis Ship Change File provided by the Maritime Administration. The 1 January 1987 billet requirements are listed by ship name, with official number where available, in Appendix D-3.

C. TOTAL MOBILIZATION BILLETS is the sum of billets for ACTIVE U.S. FLAG FLEET and RESERVE FLEETS.

D. Using the men per billet ratio experienced for sustained operations in World War II, the billet total is multiplied by 1.5 to arrive at MOBILIZATION MANPOWER REQUIRED (the 1.5 factor was used by Navy in the 1986 Manpower study).

E. For the 1987 calculations, the number of ACTIVE SEAMEN was taken directly from MARAD's Seamen's Employment Analysis Output data through 12/31/86. For the year 2000 calculations, ACTIVE SEAMEN are estimated based on two men per billet in the active U.S. flag fleet (historically, the peacetime workforce stabilizes at about two seamen per billet).

F. AVAILABLE SEAMEN were calculated using a 90% factor to estimate the number who would serve at sea in time of emergency (the 90% factor was used by Navy in the 1986 Manpower study).

G. SURPLUS/SHORTFALL TO MAN EXISTING (PROJECTED) FLEETS compares the workforce to the requirement and was determined by subtracting the MOBILIZATION MANPOWER REQUIRED from the number of AVAILABLE SEAMEN.

H. ADDITIONAL STRATEGIC SEALIFT MANNING was developed using "standard" ship types and crew sizes. # OF SHIPS was derived to provide sufficient sealift capability for the Southwest Asia scenario without regard to scheduling, availability, or attrition.

I. TOTAL SURPLUS/SHORTFALL compares the workforce to the sealift manpower requirement, assuming that the shortage in ships is made up from assets other than active U.S. flag merchant ships.

2. A ship whose manning is estimated by the Commission is indicated by an asterisk (*). The majority of ships in this category (1) are in excess of 40 years old (e.g. the NDRF Victory ships), or (2) have never been operated commercially under the U.S. flag, or (3) are passenger ships which would have reduced crews, particularly steward departments, while serving as troopships.

SUMMARY OF SEAGOING LABOR - 1987

D-1

SOUTHWEST ASIA SCENARIO

SHIP TYPE	# OF SHIPS	LICENSED BILLETS DECK	ENGINE	RADIO	UNLICENSED BILLETS DECK	ENGINE	STEWARD	TOTAL BILLETS
ACTIVE U.S. FLAG FLEET								
DRY CARGO	199	914	1024	201	1768	1189	1264	6360
BULK/PASS	28	111	119	25	232	152	260	899
TANKER	216	880	912	198	1671	946	812	5419
SUB-TOTAL	443	1905	2055	424	3671	2287	2336	12678
RESERVE FLEETS								
RRF	86	408	468	86	961	652	604	3179
ROS	11	48	59	13	120	124	108	472
SUB-TOTAL	97	456	527	99	1081	776	712	3651
TOTAL MOBILIZATION BILLETS		2361	2582	523	4752	3063	2908	16189
MOBILIZATION MANPOWER REQUIRED (BILLETS X 1.5)		3541	3873	784	7128	4594	4362	24283
ACTIVE SEAMEN		4081	4627	859	7919	4730	5619	27835
AVAILABLE SEAMEN (ACTIVE X 90%)		3672	4164	773	7127	4257	5057	25051
SURPLUS/SHORTFALL TO MAN EXISTING FLEETS		131	291	-11	-1	-338	695	768
ADDITIONAL STRATEGIC SEALIFT MANNING								
RO-RO	42	210	210	42	336	210	210	1218
CONTAINER	12	48	48	12	72	36	36	252
SUB-TOTAL	54	258	258	54	408	246	246	1470
ADDITIONAL MANPOWER REQUIRED (BILLETS X 1.5)		387	387	81	612	369	369	2205
TOTAL MANPOWER REQUIRED (BILLETS X 1.5)		3928	4260	865	7740	4963	4731	26488
SURPLUS/SHORTFALL TO MEET STRATEGIC SEALIFT REQUIREMENTS *		-256	-96	-92	-613	-707	326	-1437

* TO THE EXTENT THAT SHIPPING SHORTFALLS ARE FILLED BY ACTIVE U.S. FLAG MERCHANT SHIPS WHICH CONTRIBUTE TO INCREASING THE SIZE OF THE ACTIVE SEAGOING WORKFORCE, THE MANPOWER SHORTAGES WILL BE REDUCED.

SUMMARY OF SEAGOING LABOR - 2000

D-2

SOUTHWEST ASIA SCENARIO

SHIP TYPE	# OF SHIPS	LICENSED BILLETS DECK	LICENSED BILLETS ENGINE	LICENSED BILLETS RADIO	UNLICENSED BILLETS DECK	UNLICENSED BILLETS ENGINE	UNLICENSED BILLETS STEWARD	TOTAL
ACTIVE U.S. FLAG FLEET								
DRY CARGO	93	399	426	93	696	419	476	2509
BULK/PASS	27	111	122	27	255	173	308	996
TANKER	97	397	404	87	713	348	340	2289
SUB-TOTAL	217	907	952	207	1664	940	1124	5794
RESERVE FLEETS								
RRF	133	604	706	132	1356	916	857	4571
ROS	13	59	74	17	152	159	123	584
SUB-TOTAL	146	663	780	149	1508	1075	980	5155
TOTAL MOBILIZATION BILLETS	363	1570	1732	356	3172	2015	1925	10770
MOBILIZATION MANPOWER REQUIRED (BILLETS X 1.5)		2355	2598	534	4758	3022	2887	16155
ACTIVE SEAMEN		1814	1904	414	3328	1880	2248	11588
AVAILABLE SEAMEN (ACTIVE X 90%)		1632	1713	372	2995	1692	2023	10429
SURPLUS/SHORTFALL TO MAN PROJECTED FLEETS		-722	-884	-161	-1763	-1331	-864	-5726
ADDITIONAL STRATEGIC SEALIFT MANNING								
RO-RO	66	330	330	66	528	330	330	1914
CONTAINER	80	320	320	80	480	240	240	1680
TANKER	21	84	84	21	189	21	63	462
PASSENGER	5	30	60	10	165	145	100	510
SUB-TOTAL	172	764	794	177	1362	736	733	4566
ADDITIONAL MANPOWER REQUIRED (BILLETS X 1.5)		1146	1191	265	2043	1104	1099	6849
TOTAL MANPOWER REQUIRED (BILLETS X 1.5)		3501	3789	799	6801	4126	3987	23004
SHORTFALL TO MEET STRATEGIC SEALIFT REQUIREMENTS *		-1868	-2075	-426	-3805	-2434	-1963	-12574

* TO THE EXTENT THAT SHIPPING SHORTFALLS ARE FILLED BY ACTIVE U.S. FLAG MERCHANT SHIPS WHICH CONTRIBUTE TO INCREASING THE SIZE OF THE ACTIVE SEAGOING WORKFORCE, THE MANPOWER SHORTAGES WILL BE REDUCED.

1987 MANPOWER LISTS FOR SHIPS IN THE U.S. FLAG FLEET, THE READY RESERVE FORCE, THE NATIONAL DEFENSE RESERVE FLEET, AND CIVIL SERVICE MANNED SHIPS OF THE MILITARY SEALIFT COMMAND ARE ATTACHED.

U.S. FLAG DRY CARGO SHIPS

U.S. FLAG BULK AND PASSENGER SHIPS

U.S. FLAG TANKER SHIPS

READY RESERVE FORCE SHIPS

MSC REDUCED OPERATIONAL STATUS SHIPS

NATIONAL DEFENSE RESERVE FLEET

U.S. FLAG DRY CARGO SHIPS - 1987

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
ADABELLE LYKES	668348	5	6	1	8	5	5
ALEUTIAN DEVELOPER	283030	4	4	1	6	5	5
ALLISON LYKES	296632	4	6	1	10	6	7
ALMERIA LYKES	512593	5	6	1	11	9	11
AMBASSADOR	625498	4	4	1	6	4	3
AMERICAN ALABAMA	665782	4	4	1	6	3	3
AMERICAN ALTAIR	298129	5	6	1	11	7	8
AMERICAN APOLLO	529004	5	6	1	11	8	8
AMERICAN AQUARIUS	530999	5	6	1	11	8	8
AMERICAN ASTRONAUT	520694	5	6	1	11	8	8
AMERICAN BANKER	288986	4	5	1	7	6	5
AMERICAN BUILDER	287238	5	6	1	7	6	5
AMERICAN CALIFORNIA	665788	4	4	1	6	3	3
AMERICAN CONDOR	676864	4	3	1	6	3	3
AMERICAN CORMORANT*		4	5	1	6	6	5
AMERICAN DRACO	299008	5	6	1	11	7	8
AMERICAN EAGLE	658479	4	3	1	6	3	3
AMERICAN ENTENTE	552706	5	6	1	10	5	7
AMERICAN ENVOY	541868	5	6	1	10	5	7
AMERICAN FALCON	697393	4	3	1	6	3	3
AMERICAN GEORGIA	689194	4	4	1	6	3	3
AMERICAN ILLINOIS	665787	4	4	1	6	3	3
AMERICAN KENTUCKY	665784	4	4	1	6	3	3
AMERICAN LANCER	514261	5	6	1	11	8	8
AMERICAN LARK	518444	5	6	1	11	8	8
AMERICAN LEGION	515155	5	6	1	11	8	8
AMERICAN LIBERTY	516464	5	6	1	11	8	8
AMERICAN LYNX	517450	5	6	1	11	8	8
AMERICAN MAINE	665781	4	4	1	6	3	3
AMERICAN MARKETER	544303	5	6	1	11	7	8
AMERICAN MERCHANT	547288	5	6	1	11	7	8
AMERICAN MONARCH	519937	5	5	1	10	6	7
AMERICAN NEBRASKA	665785	4	4	1	6	3	3
AMERICAN NEW JERSEY	665223	4	4	1	6	3	3
AMERICAN NEW YORK	665222	4	4	1	6	3	3
AMERICAN OHIO	689193	4	4	1	6	3	3
AMERICAN OKLAHOMA	665786	4	4	1	6	3	3
AMERICAN PIONEER	612085	5	6	1	10	5	7
AMERICAN PURITAN	623168	5	6	1	10	5	7
AMERICAN RESERVIST	296947	5	6	1	11	7	8
AMERICAN RESOLUTE	612715	5	5	1	10	6	7
AMERICAN SPITFIRE	51843[illegible]	5	5	1	10	6	7
AMERICAN TITAN	51597[illegible]	5	5	1	10	6	7
AMERICAN TROJAN	517617	4	5	1	9	5	5
AMERICAN UTAH	665789	4	4	1	6	3	3
AMERICAN VETERAN	530142	5	6	1	9	6	5
AMERICAN VIRGINIA	665783	4	4	1	6	3	3
AMERICAN WASHINGTON	665790	4	4	1	6	3	3
ARGONAUT	601377	5	5	1	10	7	8
ASHLEY LYKES	292191	5	7	1	11	9	9
ATLANTIC SPIRIT	573223	5	5	1	9	5	5
AUSTRAL RAINBOW	530141	5	6	1	9	6	6
BAYAMON	530007	5	5	1	9	5	5

U.S. FLAG DRY CARGO SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
BORINQUEN	248239	5	5	1	9	8	5
BOSTON	511485	5	6	1	11	9	9
BRINTON LYKES	288699	5	6	1	10	8	7
CAGUAS	557149	5	5	1	9	5	5
CHARLOTTE LYKES	668349	5	6	1	8	5	5
CYGNUS	632750	4	5	1	8	5	5
DAWN	291781	4	5	1	9	8	6
DOCK EXPRESS TEXAS	666669	4	3	0	3	0	1
ELIZABETH LYKES	500702	5	6	1	11	7	8
EXPORT CHALLENGER	292227	5	6	1	11	8	8
EXPORT CHAMPION	292669	5	6	1	11	8	8
EXPORT FREEDOM	541414	5	5	1	10	7	8
EXPORT PATRIOT	548442	5	5	1	10	7	8
FEDERAL LAKES	681926	4	5	1	7	6	4
FEDERAL SEAWAY	694202	4	5	1	7	6	4
FORTALEZA	544797	5	5	1	9	5	5
GALVESTON	248242	5	5	1	11	9	9
GALVESTON BAY	504077	4	5	1	9	5	4
GENEVIEVE LYKES	513140	5	6	1	11	7	8
GREAT LAND	567835	4	5	1	9	6	5
GREEN HARBOUR	561453	4	5	1	6	6	5
GREEN ISLAND	562594	4	5	1	6	6	5
GREEN VALLEY	559623	4	5	1	7	5	5
GREEN WAVE	677648	4	4	1	6	2	4
HOWELL LYKES	509581	5	6	1	11	9	11
ISLAND HOPE	610290	4	2	0	3	1	1
ISLAND MARIANA	627433	4	2	0	3	1	1
JAMES LYKES	280564	5	6	1	10	9	7
JEAN LYKES	287103	5	6	1	10	8	7
JOHN HENRY	599294	4	2	1	6	1	2
JOHN LYKES	282772	5	7	1	11	9	9
JOSEPH LYKES	281326	5	6	1	10	8	7
KAUAI	621042	5	6	1	11	8	8
LASH ATLANTICO	530145	5	6	1	10	6	5
LASH ITALIA	529255	5	6	1	10	6	5
LASH PACIFICO	530146	5	6	1	10	6	5
LESLIE LYKES	287416	5	6	1	10	8	7
LETITIA LYKES	512187	5	6	1	11	7	8
LONG BEACH	248240	5	6	1	10	8	7
LOUISE LYKES	299938	5	6	1	11	7	8
LURLINE	549900	5	6	1	10	8	7
LYRA	632749	5	5	1	8	5	5
MALLORY LYKES	297384	5	6	1	14	11	10
MANUKAI	524219	5	6	1	11	8	8
MANULANI	528400	5	6	1	11	8	8
MARGRET LYKES	668347	5	6	1	8	5	5
MARJORIE LYKES	289873	5	6	1	10	8	7
MASON LYKES	513860	5	6	1	11	9	11
MATSONIA	553090	4	6	1	10	8	7
MAUI	591709	5	6	1	11	8	8
MAUNA KEA	506694	4	3	1	6	3	3
MAUNALEI	246343	4	6	1	12	9	9
MERCURY	581745	5	5	1	12	7	11
NANCY LYKES	286650	5	7	1	11	9	9
OAKLAND	248076	5	5	1	10	8	9
PANAMA	248241	5	5	1	10	8	9

U.S. FLAG DRY CARGO SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
PAUL BUNYAN	602272	4	2	1	6	1	2
PHILADELPHIA	516541	5	5	1	11	9	9
PITTSBURGH	247275	5	5	1	10	8	9
PONCE	512975	5	5	1	9	5	5
PRESIDENT ADAMS	517120	5	6	1	12	9	11
PRESIDENT CLEVELAND	521866	5	6	1	12	9	11
PRES. EISENHOWER	673003	4	4	1	6	3	4
PRES. F D ROOSEVELT	674310	4	4	1	6	3	4
PRESIDENT GRANT	530138	5	6	1	11	8	8
PRESIDENT HARRISON	530139	5	6	1	11	8	8
PRESIDENT HOOVER	530137	5	6	1	11	8	8
PRESIDENT JACKSON	517717	5	6	1	12	9	11
PRESIDENT JEFFERSON	544900	5	6	1	11	8	8
PRESIDENT JOHNSON	552109	5	6	1	11	8	8
PRESIDENT KENNEDY	296779	5	6	1	12	9	11
PRESIDENT LINCOLN	651627	5	5	1	9	5	6
PRESIDENT MADISON	546725	5	6	1	11	8	8
PRESIDENT MONROE	655397	5	5	1	9	5	6
PRESIDENT PIERCE	552108	5	6	1	11	8	8
PRESIDENT TAFT	511653	5	6	1	11	9	11
PRESIDENT TAYLOR	518517	5	6	1	12	9	11
PRESIDENT TRUMAN	287976	5	6	1	12	9	9
PRESIDENT TYLER	530140	5	6	1	11	8	8
PRES. WASHINGTON	653424	5	5	1	9	5	6
PRESIDENT WILSON	520392	5	6	1	12	9	11
PUERTO RICO	561732	5	5	1	9	5	5
RAINBOW HOPE	622178	3	2	0	4	1	1
RAPID	522650	5	5	1	10	6	7
RESOLUTE	642140	4	4	1	6	3	1
ROBERT E LEE	557033	5	6	1	9	6	5
ROVER	519102	5	5	1	10	6	7
RUTH LYKES	502928	5	6	1	11	7	8
SAM HOUSTON	559035	5	6	1	9	6	5
SAN JUAN	516542	5	5	1	9	8	5
SAN PEDRO	248238	5	5	1	10	8	9
SANTA ADELA	504015	5	5	1	9	4	4
SANTA JUANA	502726	5	6	1	9	4	4
SANTA MARIA*	292838	5	8	3	16	14	15
SANTA MARIANA*	291811	5	8	3	16	14	15
SANTA MAGDALENA*	290270	5	8	3	16	14	15
SEA FOX	679514	4	4	1	6	3	3
SEA LAND ADVENTURE	594073	4	4	1	6	3	3
SEA LAND CONSUMER	552818	5	6	1	10	8	8
SEA LAND ECONOMY	532410	5	6	1	10	8	8
SEA LAND LEADER	594374	4	4	1	6	3	3
SEA LAND PACER	593980	4	4	1	6	3	3
SEA LAND PIONEER	594375	4	4	1	6	3	3
SEA LAND VENTURE	531478	5	6	1	10	8	8
SEA-LAND DEFENDER	604246	4	4	1	6	3	3
SEA-LAND DEVELOPER	604247	4	4	1	6	3	3
SEA-LAND ENDURANCE	606062	4	4	1	6	3	3
SEA-LAND EXPLORER	604248	4	4	1	6	3	3
SEA-LAND EXPRESS	604249	4	4	1	6	3	3
SEA-LAND FREEDOM	606065	4	4	1	6	3	3
SEA-LAND INDEPENDENCE	606061	4	4	1	6	3	3
SEA-LAND INNOVATOR	606064	4	4	1	6	3	3

U.S. FLAG DRY CARGO SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
SEA-LAND LIBERATOR	604245	4	4	1	6	3	3
SEA-LAND MARINER	606066	4	4	1	6	3	3
SEA-LAND PATRIOT	604244	4	4	1	6	3	3
SEA-LAND PRODUCER	552819	5	6	1	10	8	8
SEA-LAND VOYAGER	606063	4	4	1	6	3	3
SEA LION	687321	4	4	1	6	3	3
SEA WOLF	676163	4	4	1	6	3	3
SENATOR	639987	4	4	1	6	4	3
SHELDON LYKES	668350	5	6	1	8	5	5
SHIRLEY LYKES	289283	5	6	1	10	8	7
SOLOM TURMAN	285889	5	7	1	11	9	9
ST LOUIS	515620	5	5	1	10	8	9
STELLA LYKES	296216	5	6	1	14	11	10
STONEWALL JACKSON	557034	5	6	1	9	6	5
TAMPA BAY	504982	4	5	1	9	5	4
THOMPSON LYKES	283413	5	7	1	11	9	9
TRANSCOLORADO	248806	5	5	1	12	9	8
TRANSCOLUMBIA	248702	5	6	1	11	8	8
TYSON LYKES	569400	5	6	1	10	7	5
WESTWARD VENTURE	581673	4	5	1	9	6	5
ZOELLA LYKES	282126	5	6	1	10	8	7
SUB-TOTAL		862	967	188	1677	1134	1155
TOTAL		5983					
NUMBER OF SHIPS		186					
MARITIME PREPOSITIONING FORCE							
1ST LT ALEX BONNYMAN	680897	4	5	1	6	3	9
1ST LT B LOPEZ	678108	4	4	1	8	5	8
1ST LT JACK LUMMUS	678109	4	4	1	8	5	8
2ND LT JOHN P BOBO	678106	4	4	1	8	5	8
CPL LOUIS J HAUGE	671969	4	5	1	6	3	9
MAJ STEPHAN W PLESS	655332	4	4	1	7	5	8
PFC DEWAYNE T WILLIAM	678107	4	4	1	8	5	8
PFC EUGENE A OBREGON	641084	4	4	1	7	5	8
PFC JAMES ANDERSON	679513	4	5	1	6	3	9
PFC WILLIAM B BAUGH	674269	4	5	1	6	3	9
PVT HARRY FISHER	684591	4	5	1	6	3	9
SGT MATEJ KOCAK	641083	4	4	1	7	5	8
SGT WM R BUTTON	678110	4	4	1	8	5	8
SUB-TOTAL		52	57	13	91	55	109
TOTAL		377					
NUMBER OF SHIPS		13					
SUB-TOTAL		914	1024	201	1768	1189	1264
TOTAL		6360					
TOTAL NUMBER DRY CARGO SHIPS		199					

U.S. FLAG BULK SHIPS - 1987

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
ALTAIR	694279	4	4	1	6	3	3
ARCHON	668167	4	4	1	6	3	3
ARION	694281	4	4	1	6	3	3
ASPEN	694280	4	4	1	6	3	3
AURORA	667028	4	4	1	6	3	3
BETTY WOOD	544994	2	2	0	4	1	1
CALRICE TRANSPORT	578241	4	4	0	6	3	2
ENERGY INDEPENDENCE	657540	4	4	1	8	3	3
EROL BEKER	646729	2	1	0	3	1	1
GOLDEN PHOENIX	598731	4	5	1	7	9	4
INGER	248011	4	4	1	6	4	4
JADE PHOENIX	598729	4	5	1	7	9	4
JAMIE A. BAXTER	583310	3	3	0	5	0	1
MARINE PRINCESS	652421	4	4	1	9	4	4
MOKO PAHU	649569	4	2	0	4	2	2
OMI MISSOURI	662123	4	4	1	6	4	3
OMI SACRAMENTO	662124	4	4	1	7	3	3
OVERSEAS HARRIETTE	590624	4	4	1	6	5	4
OVERSEAS MARILYN	590623	4	4	1	6	5	4
PRIDE OF TEXAS	634621	4	3	1	7	4	4
SEADRIFT	241851	4	4	1	6	3	2
SPIRIT OF TEXAS	635210	4	3	1	7	4	4
STAR OF TEXAS	642934	4	3	1	7	4	4
SUGAR ISLANDER	547000	4	4	1	7	3	3
ULTRAMAR	550200	4	4	1	9	4	4
ULTRASEA	555146	4	4	1	9	4	4
SUB-TOTAL		99	95	21	166	94	80
TOTAL		555					
NUMBER OF SHIPS		26					
PASSENGER SHIPS							
CONSTITUTION*	262027	6	12	2	33	29	90
INDEPENDENCE*	261147	6	12	2	33	29	90
SUBTOTAL		12	24	4	66	58	180
TOTAL		344					
TROOPSHIP MOBILIZATION							
CONSTITUTION*	262027	6	12	2	33	29	20
INDEPENDENCE*	261147	6	12	2	33	29	20
SUB-TOTAL		12	24	4	66	58	40
TOTAL		204					

U.S. FLAG TANKER SHIPS - 1987

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
ADMIRALTY BAY	533270	0	0	1	9	5	4
ADONIS	653691	4	4	1	9	5	4
ALASKAN	512506	5	5	1	11	8	5
AMERICA SUN	523846	4	4	1	9	5	4
AMERICAN GULF V	248653	5	5	1	10	5	5
AMERICAN HERITAGE	577343	4	4	1	9	4	4
ARCO ALASKA	614544	4	4	1	9	5	4
ARCO ANCHORAGE	548424	4	4	1	9	5	4
ARCO CALIFORNIA	623291	4	4	1	9	5	4
ARCO FAIRBANKS	559400	4	4	1	9	5	4
ARCO INDEPENDENCE	586633	4	4	1	9	5	4
ARCO JUNEAU	556666	4	4	1	9	5	4
ARCO PRUDHOE BAY	536496	4	4	1	9	5	4
ARCO SAG RIVER	539313	4	4	1	9	5	4
ARCO SPIRIT	580245	4	4	1	9	5	4
ARCO TEXAS	549197	4	4	1	9	5	4
ASPEN	535357	5	5	1	9	5	4
ATIGUN PASS	586128	4	4	1	9	4	4
B T ALASKA	590208	5	5	1	9	4	4
B T SAN DIEGO	598680	5	5	1	9	4	4
BALTIMORE/BALTIMORE	654191	4	4	0	4	1	3
BALTIMORE TRADER	270179	5	5	1	9	5	4
BAY RIDGE	600128	4	5	1	9	5	4
BEAUJOLAIS	267198	4	4	1	9	6	4
BEAVER STATE	572359	4	4	1	9	4	4
BENNINGTON	293299	4	4	1	7	6	4
BLUE RIDGE	633428	4	4	1	6	3	3
BRAVADO	676454	4	3	0	3	0	1
BROOKLYN	553648	4	5	1	9	5	5
BROOKS RANGE	586130	4	5	1	9	6	4
CAROLE G INGRAM	538087	3	3	0	6	0	2
CHABLIS	283424	4	4	1	9	6	4
CHARLESTON	626561	4	4	1	9	5	3
CHELSEA	562416	4	4	1	8	4	4
CHEMICAL PIONEER	661060	5	5	1	8	5	4
CHERRY VALLEY	557503	4	4	1	8	4	4
CHESAPEAKE	296863	4	4	1	9	10	4
CHESAPEAKE TRADER	650468	4	4	1	6	3	3
CHESTNUT HILL	577738	4	4	1	8	4	4
CHEVRON ARIZONA	588320	4	4	1	6	0	2
CHEVRON CALIFORNIA	541563	4	4	1	6	6	3
CHEVRON COLORADO	577358	4	4	1	6	0	2
CHEVRON LOUISIANA	584696	4	4	1	6	0	2
CHEVRON MISSISSIPPI	542850	4	4	1	6	6	3
CHEVRON OREGON	566080	4	4	1	6	0	2
CHEVRON WASHINGTON	570709	4	4	1	6	0	2
CHILBAR	634540	5	5	1	9	5	4
COAST RANGE	638709	4	4	1	6	3	3
COASTAL MANATEE	287186	4	4	1	9	5	3
COLORADO	245104	4	4	1	9	4	3
CONCHO	247640	4	4	1	9	4	3
COPPER MOUNTAIN	640448	4	4	1	9	6	4
CORNUCOPIA	590414	4	4	1	6	5	3

U.S. FLAG TANKER SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
CORONADO	553623	4	4	1	7	5	4
COURIER	578746	4	4	1	8	4	4
COVE LEADER	279938	4	5	1	7	5	4
COVE LIBERTY	644295	4	5	1	7	5	4
COVE TRADER	279438	4	5	1	7	5	4
DELAWARE SEA	245058	5	5	1	10	7	6
DELAWARE TRADER	652547	4	4	1	6	3	3
EDGAR M QUEENY	528567	5	5	1	9	5	4
ENERGY ALTAIR	653464	2	1	0	2	1	1
ESTHER MORAN	292910	3	2	0	3	0	1
EXXON BALTIMORE	282272	4	5	1	6	4	4
EXXON BATON ROUGE	524619	4	4	1	6	3	3
EXXON BAYTOWN	658495	4	4	1	6	3	3
EXXON BENICIA	600478	4	4	1	6	4	3
EXXON BOSTON	283784	4	5	1	6	4	4
EXXON CHARLESTON	658493	5	4	1	6	4	3
EXXON GALVESTON	588443	4	3	0	6	2	3
EXXON HOUSTON	297151	4	4	1	6	5	3
EXXON JAMESTOWN	275519	4	5	1	6	4	4
EXXON LEXINGTON	276270	4	5	1	6	4	4
EXXON NEW ORLEANS	298216	4	4	1	6	5	3
EXXON NORTH SLOPE	600477	4	4	1	6	4	3
EXXON PHILADELPHIA	526792	4	4	1	6	3	3
EXXON PRINCETON	647470	4	4	1	6	3	3
EXXON SAN FRANCISCO	523626	4	4	1	6	3	3
EXXON WASHINGTON	273896	4	5	1	6	4	4
EXXON WILMINGTON	658494	5	4	1	6	4	3
EXXON YORKTOWN	656742	4	4	1	6	3	3
FALCON CHAMPION	663105	4	4	1	8	2	3
FALCON COUNTESS	536850	4	4	1	7	4	3
FALCON DUCHESS	533611	4	4	1	10	3	3
FALCON LADY	531154	4	4	1	7	4	3
FALCON LEADER	658555	4	4	1	8	2	3
FALCON PRINCESS	538811	4	4	1	8	2	3
FRANCIS HAMMER	638765	4	4	0	6	1	2
FREDRICKSBURG	277561	4	4	1	7	6	4
GLACIER BAY	526588	5	5	1	9	5	4
GOLDEN ENDEAVOR	561433	4	4	1	9	4	4
GOLDEN GATE	526972	4	4	1	10	5	4
GOLDEN MONARCH	566090	4	4	1	9	4	4
GROTON/GROTON	647320	4	4	0	4	2	2
GUADALUPE	247350	4	4	1	9	4	3
GUS W DARNELL	684689	4	4	1	6	5	4
JACKSONVILLE	631787	4	4	0	4	2	2
JULIUS HAMMER	631332	4	4	0	6	1	2
KENAI	586127	4	4	1	9	4	4
KEYSTONE CANYON	586129	4	4	1	9	4	4
KEYSTONER	266730	4	4	1	9	5	4
KING	275193	4	4	1	6	6	3
KITTANNING	579572	4	4	1	8	4	4
KNIGHT	277183	4	4	1	6	3	3
LAKE CHARLES	619531	4	6	1	9	5	5
LAWRENCE GIANELLA	684692	4	4	1	6	5	4
LION OF CALIFORNIA	268216	4	4	0	10	5	4
LNG AQUARIUS	582506	5	6	1	10	4	5
LNG ARIES	588005	5	6	1	10	4	5

U.S. FLAG TANKER SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
LNG CAPRICORN	588006	5	6	1	10	4	5
LNG GEMINI	595752	5	6	1	10	4	5
LNG LEO	595753	5	6	1	10	4	5
LNG LIBRA	595756	5	6	1	10	4	5
LNG TAURUS	595754	5	6	1	10	4	5
LNG VIRGO	595755	5	6	1	10	4	5
LOUISIANA	619532	5	7	1	10	5	5
LOUISIANA BRIMSTONE	247757	5	5	1	11	10	6
LOUISIANA SULPHUR	242964	4	4	1	11	9	8
MANHATTAN	287253	5	8	1	13	13	9
MARINE CHEMIST	529399	5	5	1	10	6	6
MARINE DUVAL	245851	4	5	1	11	6	4
MARINE FLORIDIAN	246836	4	5	1	11	6	4
MARINE TEXAN	247563	5	5	1	11	9	6
MARTHA R INGRAM	533104	3	3	0	6	0	2
MARYLAND	574906	4	5	1	9	5	4
MASSACHUSETTS	564344	4	5	1	9	5	4
MOBIL ARCTIC	542026	4	4	1	9	6	4
MOBIL MERIDIAN	286479	4	4	1	9	6	4
MOBILE/MOBILE	654193	4	4	0	4	2	2
MONTRACHET	279334	4	4	1	9	6	4
MORMACSKY	578288	4	4	1	8	4	4
MORMACSTAR	569257	4	4	1	8	4	4
MORMACSUN	573770	4	4	1	8	4	4
MOUNT VERNON VICTORY	284178	5	5	1	10	6	6
MOUNT WASHINGTON	293097	4	5	1	10	6	6
NECHES	277703	4	4	1	9	4	3
NEW YORK	569583	4	5	1	9	5	4
NEW YORK SUN	628783	4	4	1	6	3	4
NEW YORK/NEW YORK	648935	4	4	0	4	2	2
OMI CHAMPION	523341	4	4	1	6	4	4
OMI CHARGER	522864	4	4	1	6	4	4
OMI COLUMBIA	663428	4	4	1	6	4	4
OMI DYNACHEM	638899	4	4	1	6	4	3
OMI HUDSON	642151	4	4	1	6	4	3
OMI LEADER	520839	4	4	1	6	4	4
OMI WABASH	520728	4	4	1	6	5	4
OMI WILLIAMETTE	518738	4	4	1	6	4	4
OVERSEAS ALASKA	529795	4	4	1	6	6	4
OVERSEAS ALICE	514928	4	4	1	6	6	4
OVERSEAS ARCTIC	530877	4	4	1	6	6	4
OVERSEAS BOSTON	630050	4	5	1	6	6	4
OVERSEAS CHICAGO	583412	4	4	1	6	6	4
OVERSEAS JUNEAU	553137	4	4	1	6	6	4
OVERSEAS NATALIE	287156	4	4	1	6	6	4
OVERSEAS NEW YORK	588001	4	4	1	6	6	4
OVERSEAS OHIO	586647	4	4	1	6	6	4
OVERSEAS VALDEZ	517186	4	4	1	6	6	4
OVERSEAS VIVIAN	518125	4	4	1	6	4	4
OVERSEAS WASHINGTON	588955	4	4	1	6	6	4
OXY PRODUCER (NO CREW	635250						
PATRIOT	571049	4	4	1	8	4	4
PAUL BUCK	684688	4	4	1	6	5	4
PECOS	259357	4	4	1	9	5	3
PENNSYLVANIA TRADER	289972	5	5	1	9	5	4
PETERSBURG	291990	4	4	1	9	5	5

U.S. FLAG TANKER SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
PHILADELPHIA	654192	4	4	0	4	2	2
PHILADELPHIA SUN	638073	4	4	1	6	3	4
POMEROL	276911	4	4	1	9	6	4
POTOMAC TRADER	655201	4	4	1	6	3	3
PRIDE	279769	4	4	1	6	6	3
PRINCE WILLIAM SOUND	570108	4	4	1	9	5	4
RANGER	573810	4	4	1	8	4	4
RICHARD G MATHIESON	684691	4	4	1	6	5	4
ROVER	577241	4	4	1	8	4	4
SABINE	274440	4	4	1	9	4	2
SAMUEL COBB	684690	4	4	1	6	5	4
SANSINENA II	535020	4	4	1	6	7	4
SEA VENTURE	659954	4	4	1	6	3	2
SEABULK CHALLENGER	560289	4	4	0	6	0	2
SEABULK MAGNACHEM	580102	4	4	0	6	1	2
SEALIFT ANTARCTIC	557008	4	4	1	9	1	3
SEALIFT ARABIAN SEA	557001	4	4	1	9	1	3
SEALIFT ARCTIC	557007	4	4	1	9	1	3
SEALIFT ATLANTIC	557002	4	4	1	9	1	3
SEALIFT CARRIBEAN	557006	4	4	1	9	1	3
SEALIFT CHINA SEA	557004	4	4	1	9	1	3
SEALIFT INDIAN OCEAN	557005	4	4	1	9	1	3
SEALIFT MEDITERRANEAN	557003	4	4	1	9	1	3
SEALIFT PACIFIC	557000	4	4	1	9	1	3
SIERRA MADRE	641804	4	4	1	6	3	3
SOLAR	280223	4	4	1	6	6	3
SPIRIT OF LIBERTY	516521	4	4	1	9	4	4
SPRAY	282849	4	4	1	6	6	3
ST EMILION	272077	4	4	1	9	6	4
STUYVESANT	584459	4	5	1	9	5	4
SYOSSET	277623	4	4	1	6	6	4
TEXACO CALIFORNIA	266910	4	4	1	9	6	5
TEXACO CONNECTICUT	266501	4	4	1	9	6	5
TEXACO FLORIDA	271820	4	4	1	9	6	5
TEXACO GEORGIA	293819	4	4	1	9	6	5
TEXACO MARYLAND	292735	4	4	1	11	8	6
TEXACO MASSACHUSETTS	290306	4	4	1	9	6	5
TEXACO MINNESOTA	243202	4	4	1	9	9	5
TEXACO MISSISSIPPI	245082	4	4	1	9	9	5
TEXACO MONTANA	298918	4	4	1	9	6	5
TEXACO NEW YORK	265981	4	4	1	9	6	5
TEXACO RHODE ISLAND	296380	4	4	1	9	6	5
TEXAS SUN	283897	4	4	1	9	5	4
THOMPSON PASS	586131	5	5	1	9	8	3
TONSINA	585629	4	4	1	9	4	4
TROPIC SUN	275583	4	4	1	9	5	4
U S T ATLANTIC	601437	4	5	1	9	5	5
U S T PACIFIC	613131	4	5	1	9	5	5
VALLEY FORGE	505786	4	5	1	9	5	4
WESTERN SUN	268798	4	4	1	9	8	4
WILLIAMSBURGH	560975	4	5	1	9	5	5
SUB-TOTAL		880	912	198	1671	946	812
TOTAL		5419					
NUMBER OF SHIPS		216					

READY RESERVE FORCE SHIPS - 1987

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
ADM. W. CALLAHAN	511744	4	5	1	7	6	5
ADVENTURER	284024	4	5	1	10	7	6
AGENT	283936	4	5	1	10	7	6
AIDE	284516	4	5	1	10	7	6
ALATNA		4	4	1	9	3	3
AMBASSADOR	283150	4	5	1	10	7	6
AMERICAN EXPLORER		5	5	1	10	5	6
AMERICAN VICTORY	248005	5	5	1	13	8	7
AUSTRAL LIGHTNING	530144	5	6	1	11	8	8
BANNER	286124	5	6	1	11	8	8
CAPE ALAVA	289281	5	5	1	13	8	7
CAPE ALEXANDER	289792	5	5	1	13	8	7
CAPE ANN	290143	5	5	1	13	8	7
CAPE ARCHWAY	290485	5	5	1	13	8	7
CAPE AVINOF	291026	5	5	1	13	8	7
CALIFORNIA	287232	5	6	1	11	11	9
CAPE BLANCO	505406	5	6	1	11	7	8
CAPE BON	509652	5	6	1	11	7	8
CAPE BORDA	507344	5	6	1	11	7	8
CAPE BOVER	506812	5	6	1	11	7	8
CAPE BRETON	508378	5	6	1	11	7	8
CAPE CANAVERAL	293817	4	5	1	10	7	6
CAPE CANSO	292614	5	5	1	10	9	6
CAPE CARTHAGE	293555	5	7	1	11	9	9
CAPE CATOCHE	293220	5	7	1	11	9	9
CAPE CHALMERS	291609	5	7	1	11	12	9
CAPE CHARLES	292782	5	7	1	11	12	9
CAPE CLEAR	293224	5	7	1	11	12	9
CAPE COD	290508	5	7	1	11	12	9
CAPE DECISION	684098	4	4	1	9	4	5
CAPE DIAMOND	684097	4	4	1	9	4	5
CAPE DOMINGO	684099	4	4	1	9	4	5
CAPE DOUGLAS	684100	4	4	1	9	4	5
CAPE DUCATO	684101	4	4	1	9	4	5
CAPE EDMONT	901128	4	4	1	9	4	5
CAPE FAREWELL	549153	5	6	1	9	6	5
CAPE FLATTERY	550900	5	6	1	9	6	5
CAPE FLORIDA	530143	5	6	1	9	6	5
CAPE HENRY	901126	4	4	1	9	4	5
CAPE HUDSON	901127	4	4	1	9	4	5
CAPE HORN	901125	4	4	1	9	4	5
CAPE ISABEL	577636	5	6	1	10	7	7
CAPE MAY	536671	5	6	1	11	7	8
CAPE MENDOCINO	536500	5	6	1	11	7	8
CAPE MOHICAN	536672	5	6	1	11	7	8
CATAWBA VICTORY	248116	5	5	1	12	10	10
CHATTAHOOCHEE		4	4	1	9	3	3
COMET		5	5	1	13	11	9
COURIER	289947	5	6	1	11	8	8
DEL MONTE	514758	4	4	1	9	5	4
DEL VALLE	516600	4	4	1	9	5	4
DEL VIENTO	517540	4	4	1	9	5	4
GEM STATE	501712	7	6	1	28	12	[illegible]
GRAND CANYON STATE*	500484	7	6	1	28	12	10

READY RESERVE FORCE SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
GULF BANKER	295249	5	7	1	11	12	9
GULF FARMER	294625	5	7	1	11	12	9
GULF MERCHANT	297329	5	7	1	11	12	9
GULF SHIPPER	296880	5	7	1	11	12	9
GULF TRADER	296404	5	7	1	11	12	9
HATTIESBURG VICTORY	248651	5	5	1	13	8	7
JUPITER	573093	5	6	1	10	7	5
KEYSTONE STATE	502569	7	6	1	28	12	10
LAKE	284802	5	5	1	11	10	9
MAINE	504714	4	4	1	9	5	4
MAUMEE*		4	4	1	11	4	4
METEOR		5	5	1	13	8	8
NODAWAY		4	4	1	9	3	3
NORTHERN LIGHT	286749	5	5	1	11	10	9
PATRIOT STATE	293943	4	6	1	10	7	5
PIONEER COMMANDER	290905	5	7	1	11	10	9
PIONEER CONTRACTOR	291968	5	7	1	11	10	9
PIONEER CRUSADER	292930	5	7	1	11	10	9
POTOMAC	297163	4	4	1	11	4	4
PRIDE	282295	5	5	1	11	10	9
SANTA ANA	290262	5	8	1	10	8	9
SANTA BARBARA	509186	5	6	1	11	8	9
SANTA CLARA	506249	5	6	1	11	7	8
SANTA CRUZ	504681	5	6	1	11	8	9
SANTA ELENA	507696	5	6	1	11	8	8
SANTA ISABEL	510570	5	6	1	11	8	9
SANTA LUCIA	502774	5	6	1	11	8	8
SCAN	285890	5	5	1	11	10	9
SHOSHONE		4	4	1	11	4	4
SOUTHERN CROSS	287900	5	6	1	11	9	10
WASHINGTON	245460	4	4	1	9	5	4
YUKON*		4	4	1	11	4	4
SUB-TOTAL		408	468	86	961	652	604
TOTAL		3179					
NUMBER OF SHIPS		86					

MILITARY SEALIFT COMMAND
REDUCED OPERATIONAL STATUS (ROS) SHIPS - 1987

	LICENSED			UNLICENSED		
SHIP NAME	DECK	ENGINE	RADIO	DECK	ENGINE	STEWARD
ALGOL*	4	5	1	10	11	11
ALTAIR*	4	5	1	10	11	11
ANTARES*	4	5	1	10	11	11
BELLATRIX*	4	5	1	10	11	11
CAPELLA*	4	5	1	10	11	11
DENEBOLA*	4	5	1	10	11	11
POLLUX*	4	5	1	10	11	11
REGULUS*	4	5	1	10	11	11
CURTISS (T-AVB)	5	5	1	10	5	7
WRIGHT (T-AVB)	5	5	1	10	5	7
MERCY (T-AH)	6	9	3	20	26	6
SUB-TOTAL	48	59	13	120	124	108
TOTAL	472					
NUMBER OF SHIPS	11					

NATIONAL DEFENSE RESERVE FLEET SHIPS - 1987

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
ADELPHI VICTORY*	248091	5	6	1	12	10	10
ALBION VICTORY*	247130	5	6	1	12	10	10
ALFRED VICTORY*	247732	5	6	1	12	10	10
ALLEGHENY VICTORY*	248163	5	6	1	12	10	10
AMARILLO VICTORY*	248325	5	6	1	12	10	10
AMERICAN CHALLENGER	289699	5	7	1	11	9	10
AMERICAN CHARGER	290089	5	7	1	11	9	10
AMERICAN CHIEFTAIN	291020	5	7	1	11	9	10
AMERICAN CORSAIR	291629	5	6	1	11	9	11
AMERICAN OSPREY	276034	5	5	1	10	6	6
AMERICAN RACER	297001	5	6	1	11	8	8
AMERICAN RANGER	298270	5	6	1	11	8	8
AMERICAN RELIANCE	299371	5	6	1	11	8	8
ANCHORAGE VICTORY*	247071	5	6	1	12	10	10
ASBURY VICTORY*	248202	5	6	1	12	10	10
BARNARD VICTORY*	247659	5	6	1	12	10	10
BARRE VICTORY*	248430	5	6	1	12	10	10
BATTLE CREEK VICTORY	248432	5	6	1	12	10	10
BAY	286965	5	6	1	11	9	10
BEATRICE VICTORY*	247131	5	6	1	12	10	10
BELGIUM VICTORY*	245445	5	6	1	12	10	10
BENJAMIN HARRISON	624457	5	6	1	9	6	5
BEREA VICTORY*	247508	5	6	1	12	10	10
BERKLEY VICTORY*	247143	5	6	1	12	10	10
BESSEMER VICTORY*	248503	5	6	1	12	10	10
BRAZIL VICTORY*	245618	5	6	1	12	10	10
BRAZOS*		5	5	1	12	11	9
BUCKNELL VICTORY*	247382	5	6	1	12	10	10
BUILDER	287381	5	6	1	11	9	10
BUYER	288076	5	6	1	11	9	10
CANTON VICTORY*	248205	5	6	1	12	10	10
CAPE	284285	5	6	1	11	9	10
CAPE GASPE	297353	5	6	1	11	7	8
CAPE GEORGIA	500539	5	6	1	11	7	8
CAPE JOHN	288603	5	8	1	11	9	10
CAPE JOHNSON	289547	5	8	1	11	9	10
CAPE JUBY	289119	5	8	1	11	9	10
CAPE JUNCTION	287875	5	8	1	11	9	10
CARROLL VICTORY*	246168	5	6	1	12	10	10
CCNY VICTORY*	248049	5	6	1	12	10	10
CENTRAL VICTORY*	247528	5	6	1	12	10	10
CHANCELLORSVILLE	244235	5	5	1	12	11	9
CITADEL VICTORY*	247489	5	6	1	12	10	10
CLARKSVILLE VICTORY*	247211	5	6	1	12	10	10
COMMERCE	291731	5	6	1	11	9	9
CONNECTICUT	277291	5	5	1	12	9	9
CORNELL VICTORY*	247641	5	6	1	12	10	10
CORNHUSKER STATE	520743	5	5	1	10	7	8
COUNCIL BLUFFS VICTOR*	248841	5	6	1	12	10	10
CRACKER STATE MARINER	267733	5	6	1	11	9	10
DE PAUW VICTORY*	247383	5	6	1	12	10	10
DENISON VICTORY*	247722	5	6	1	12	10	10
DRAKE VICTORY*	248010	5	6	1	12	10	10
DUKE VICTORY	247439	5	5	1	12	10	10

NATIONAL DEFENSE RESERVE FLEET SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
DURANGO VICTORY*	247096	5	6	1	12	10	10
EARLHAM VICTORY*	248166	5	6	1	12	10	10
EDWARD RUTLEDGE	625873	5	6	1	9	6	5
ELKO VICTORY*	247075	5	6	1	12	10	10
ELMIRA VICTORY*	245770	5	6	1	12	10	10
ENID VICTORY*	248283	5	6	1	12	10	10
EXXON GETTYSBURG	273362	4	5	1	6	4	4
FLICKERTAIL STATE	518063	5	5	1	10	7	8
FLORENCE	266855	4	4	1	11	13	6
GAINSVILLE VICTORY*	246139	5	6	1	12	10	10
GLEN	285283	5	7	1	11	9	10
GOPHER STATE	545126	5	5	1	11	7	8
GREAT FALLS VICTORY*	248435	5	6	1	12	10	10
GREELY VICTORY*	248328	5	6	1	12	10	10
GRETNA VICTORY*	247295	5	6	1	12	10	10
GROVE CITY VICTORY*	247853	5	6	1	12	10	10
HALAULA VICTORY*	247217	5	6	1	12	10	10
HAMILTON VICTORY*	248167	5	6	1	12	10	10
HANNIBAL VICTORY*	247116	5	6	1	12	10	10
HARVARD VICTORY*	247334	5	6	1	12	10	10
HIGH POINT VICTORY*	248652	5	6	1	12	10	10
HOBART VICTORY*	248012	5	6	1	12	10	10
HOPE VICTORY*	247900	5	6	1	12	10	10
HUNTER VICTORY*	247946	5	6	1	12	10	10
JOPLIN VICTORY*	245749	5	6	1	12	10	10
LAFAYETTE VICTORY*	247901	5	6	1	12	10	10
LAHAINA VICTORY*	247273	5	6	1	12	10	10
LAKEWOOD VICTORY*	249821	5	6	1	12	10	10
LANE VICTORY*	248094	5	6	1	12	10	10
LAREDO VICTORY*	247305	5	6	1	12	10	10
LAS VEGAS VICTORY*	246657	5	6	1	12	10	10
LINCOLN	285311	5	8	1	13	12	12
LINDENWOOD HAVEN VICT*	248278	5	6	1	12	10	10
LOMA VICTORY*	247166	5	6	1	12	10	10
LOYOLA VICTORY*	247595	5	6	1	12	10	10
LYNN VICTORY*	248436	5	6	1	12	10	10
MALDEN VICTORY*	246763	5	6	1	12	10	10
MANDERSON VICTORY*	246676	5	6	1	12	10	10
MASSILLON VICTORY*	247097	5	6	1	12	10	10
MAYFIELD VICTORY	246775	5	6	1	14	11	10
MEACHEM	274588	4	4	1	10	6	7
MERCER VICTORY*	247534	5	6	1	12	10	10
MEREDITH VICTORY*	248209	5	6	1	12	10	10
MIRFAK*		5	5	1	12	11	9
MISSION SAN YNEZ*		5	5	1	12	11	9
MUHLENBERG VICTORY*	248300	5	6	1	12	10	10
NAECO	274966	4	4	1	11	13	6
NASHUA VICTORY*	248301	5	6	1	12	10	10
NEWCASTLE VICTORY*	250029	5	6	1	12	10	10
OBERLIN VICTORY*	247597	5	6	1	12	10	10
OCALA VICTORY*	247034	5	6	1	12	10	10
OCCIDENTAL VICTORY*	247764	5	6	1	12	10	10
OHIO	244610	4	4	1	13	11	8
OSHKOSH VICTORY*	248509	5	6	1	12	10	10
PACIFIC VICTORY*		5	6	1	12	10	10
PAN AMERICAN VICTORY*	247791	5	6	1	12	10	10

NATIONAL DEFENSE RESERVE FLEET SHIPS - 1987 (CONTINUED)

SHIP NAME	OFF. NUMBER	LICENSED DECK	LICENSED ENGINE	LICENSED RADIO	UNLICENSED DECK	UNLICENSED ENGINE	UNLICENSED STEWARD
PINE BLUFF VICTORY*		5	6	1	12	10	10
PIONEER CONTENDER	292572	5	6	1	11	9	10
PIONEER MOON	289263	5	6	1	11	9	10
PRESIDENT	286232	5	8	1	13	12	12
PRINCETON VICTORY*	247444	5	6	1	12	10	10
PURDUE VICTORY*	247618	5	6	1	12	10	10
QUEENS VICTORY*	247952	5	6	1	12	10	10
RED OAK VICTORY*	249410	5	6	1	12	10	10
RICE VICTORY*	248210	5	6	1	12	10	10
RIDER VICTORY*		5	6	1	12	10	10
ROSEWELL VICTORY*	248409	5	6	1	12	10	10
SAN MATEO VICTORY*	248286	5	6	1	12	10	10
SAUGATUCK*		5	5	1	12	11	9
SELMA VICTORY*	246142	5	6	1	12	10	10
SHARON VICTORY*	246184	5	6	1	12	10	10
SIOUX FALLS VICTORY*		5	6	1	12	10	10
SOUTHWESTERN VICTORY*	247871	5	6	1	12	10	10
ST AUGUSTINE VICTORY*	248438	5	6	1	12	10	10
SWATHMORE VICTORY*	247544	5	6	1	12	10	10
TUCSON VICTORY*	248410	5	6	1	12	10	10
TULANE VICTORY*	247651	5	6	1	12	10	10
VANDERBILT VICTORY*	247691	5	6	1	12	10	10
WAYNE VICTORY*	248021	5	6	1	12	10	10
WHITTIER VICTORY*	248214	5	6	1	12	10	10
WINTHROP VICTORY*	247957	5	6	1	12	10	10
PASSENGERSHIPS							
GEN A M PATCH*		6	12	2	33	29	20
GEN E PATRICK*		6	12	2	33	29	20
GEN JOHN POPE*		6	12	2	33	29	20
GEN M ROSE*		6	12	2	33	29	20
GEN N M WALKER*		6	12	2	33	29	20
GEN S B BUCKNER*		6	12	2	33	29	20
SUB-TOTAL		706	878	147	1778	1480	1419
TOTAL BILLETS		6408					
NUMBER OF SHIPS		141					

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APPENDIX E

SHIPBUILDING AND REPAIR INDUSTRY

AND SUPPLIER BASE

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS DATABASE DATA ITEM DESCRIPTION

1. A complete listing of the key facilities and employment history for each active firm was required to accurately assess the capability of the shipbuilding and ship repair industry. No single, complete source of data for active shipyards and ship repair company facilities and manpower existed. Several government and private agencies, including MARAD, the Naval Sea Systems Command (NAVSEA), the Shipbuilders Council of America (SCA), The American Waterways Shipyard Conference (AWSC), the Military Sealift Command (MSC) and the Army Corps of Engineers, maintained records of some existing shipyards and ship repair facilities for their own use. Their data was collected and collated by the Commission, and a database was created.

2. The database includes all active public and private shipyards, ship repair facilities, and boat yards contained in any of the following categories: MARAD listing of U.S. shipbuilding and repair facilities, NAVSEA bidders mailing list, NAVSEA Master Ship Repair Contractors, MARAD Master Lump Sum Repair Contractors, MSC Master Ship Repair Contractors, member firms or firms reporting statistics to the SCA, member firms or firms reporting statistics to the AWSC.

The database does not include firms dealing solely in the pleasure boat industry or those firms who are primarily ship operators but maintain a repair capability solely for their own fleets.

3. The data fields listed are defined as follows:

a. **NAME** - This data field contains the company name and complete mailing address.

b. **C / A** - Designation by the Commission as a Core or Ancillary mobilization shipyard. A core mobilization shipyard is defined as one that has building positions and/or docking positions capable of accommodating a vessel 400 feet long and 68 feet in beam, and a minimum channel water depth of 12 feet. An ancillary mobilization shipyard is defined as one with the capability to berth and repair vessels over 400 feet in length with a 12 foot draft. Those firms can accomplish only some mobilization tasks, such as activations of Ready Reserve Force ships.

c. **PERSONNEL** - The three columns indicate the approximate number of production workers employed by the shipyard during each of the time periods specified. Production workers are defined as those personnel charged as direct labor to a particular job, including skilled, semiskilled and unskilled workers; direct project engineers; first-line supervisors; and quality control inspectors.

Max 82-86 - The maximum number of production workers employed during the period from January 1982 to October 1986.

Oct '82 - The number of production workers employed during the month of October 1982.

Oct '86 (Aprx) - The approximate number of production workers employed on or about October 1986.

d. **FACILITIES** - The four columns indicate some of the key facilities data for each shipyard.

Build Pos - A single letter indicates the type of building position available. The numerals following it indicate the maximum length of vessel (in feet) that could be constructed at that position. When a graving dock or marine railway is used for both construction and repair, it is categorized by its most common use. Building positions with a maximum length under 100 feet are not included.

1) G - Graving drydock
2) W - Building way
3) M - Marine railway
4) L - Land level position

Dock Pos - A single letter indicates the type of drydocking capability available. The numerals following it indicate the maximum length of vessel (in feet) that could be accommodated by the drydock. Drydocks with a maximum length of under 100 feet are not included.

1) G - Graving drydock
2) F - Floating drydock
3) M - Marine railway
4) S - Synchro-lift
5) L - Land level position

L-Pier / T-Pier - The first value indicates the length (in feet) of the longest usable pier available in the shipyard. The second value indicates the cumulative total usable pier length available (in feet).

Chan / Berth - The first value indicates the minimum water depth (in feet) of the channel serving the shipyard. The second value indicates the minimum water depth (in feet) at the deepest berth in the shipyard.

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
A & E Industries, Inc.		200	76	60	NONE	NONE	NONE	N/A
P.O. Box 792					-	-	-	N/A
National City, CA 92050					-	-		
					-	-		
					-	-		
					-	-		
ADDSCO Industries, Inc.	C	1001	19	650	W620	F750	1125	40
P.O. Box 190					W523	F620	9370	28
Mobile, AL 36601					W523	-		
					W523	-		
					W523	-		
					-	-		
Advance Boiler & Tank Company		40	31	30	NONE	NONE	NONE	N/A
1711 South Carferry Drive					-	-	-	N/A
Milwaukee, WI 53207					-	-		
					-	-		
					-	-		
					-	-		
Advex Corporation		110	110	50	NONE	NONE	NONE	N/A
121 Floyd Thompson Drive					-	-	-	N/A
Hampton, VA 23666-1307					-	-		
					-	-		
					-	-		
					-	-		
AK-WA Company	C	400	0	400	NONE	F472	1200	40
P.O. Box 872					-	F405	1700	40
Tacoma, WA 98401					-	-		
					-	-		
					-	-		
					-	-		
Al Larson Boat Shop	A	171	107	100	W200	F230	475	22
1046 South Seaside Avenue					W130	F220	650	32
Los Angeles, CA 90731					W120	-		
					W110	-		
					-	-		
					-	-		
Alco Welding & Machine Co.		40	40	30	NONE	NONE	NONE	N/A
236 W. 25th Street					-	-	-	N/A
Norfolk, VA 23523					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Algiers Iron Works & DD Co. P.O. Box 6068 New Orleans, LA 70074		100	91	40	NONE - - - - -	F256 F200 - - - -	276 276	40 20
Allied Shipyard, Inc. P.O. Box 338 Larose, LA 70373		50	50	10	W125 - - - - -	F125 F125 F125 M400 - -	150 500	12 20
American Marine Corporation P.O. Box 8126 New Orleans, LA 70182		400	400	225	W400 W350 - - - - -	F200 - - - - -	350 3430	30 20
American Shipbuilding & Design P.O. Box 350641 Riverside Sta. Miami, FL 33135		10	9	10	NONE - - - - -	NONE - - - - -	NONE -	N/A N/A
AMT Incorporated 2400 N.W. 39th Avenue Miami, FL 33142		30	20	30	NONE - - - - -	NONE - - - - -	5000 7200	24 35
Anacostia Marina, Inc. 1900 'M' Street S.E. Washington, DC 20003		18	18	10	NONE - - - - -	M100 - - - - -	160 1500	9 7
Anderson & Cristofani P.O. Box 24609 San Francisco, CA 94124		12	10	10	W125 - - - - -	M120 - - - - -	120 120	20 20

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Arcwel Corporation	A	835	835	150	NONE	NONE	600	36
510 16th Street					-	-	600	36
San Diego, CA 92101					-	-		
					-	-		
					-	-		
					-	-		
Arthur Tickle Engr. Works Inc.		134	33	30	NONE	NONE	NONE	N/A
26 Delevan Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
Associated Naval Architects	A	120	100	90	NONE	M200	400	20
3400 Shipwright Street					-	M130	1550	18
Portsmouth, VA 23703					-	M120		
					-	M120		
					-	-		
					-	-		
Astoria Marine Construction Co.		22	22	20	M200	M120	360	10
403 S.W. Front Street					-	-	700	12
Astoria, OR 97103					-	-		
					-	-		
					-	-		
					-	-		
ATCO Marine Corporation		25	20	10	NONE	NONE	NONE	N/A
603 Dean Street					-	-	-	N/A
Brooklyn, NY 11238					-	-		
					-	-		
					-	-		
					-	-		
Atlantic B. C., Inc.		95	53	10	NONE	NONE	NONE	N/A
145 Van Dyke Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
Atlantic Dry Dock Corporation	C	450	86	250	NONE	M450	585	32
P. O. Box 276					-	M250	1450	30
Fort George Island, FL 32226					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Atlantic Marine, Inc.		370	213	175	W250	NONE	180	12
P.O. Box 138					W110	-	360	16
Fort George Island, FL 32226					-	-		
					-	-		
					-	-		
					-	-		
Automated Marine Prop Sys, Inc.	A	55	25	30	NONE	NONE	780	42
240 E. Barbours Cut Blvd.					-	-	2760	40
La Porte, TX 77571					-	-		
					-	-		
					-	-		
					-	-		
Avondale Industries, Inc.	C	6300	4392	3500	W1020	F1000	2300	40
P.O. Box 50280					W1020	F750	5405	20
New Orleans, LA 70150					W1020	F380		
					W700-5	-		
					W450	-		
					W450	-		
Azalea Fleet, Inc.		80	80	30	NONE	L200	NONE	N/A
P.O. Box 537					-	-	-	N/A
Ama, LA 70031					-	-		
					-	-		
					-	-		
					-	-		
B & A Marine Company, Inc.		100	90	50	NONE	NONE	NONE	N/A
75 Huntington Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
B & M Marine Repairs, Inc. CHS		60	0	50	NONE	NONE	NONE	N/A
2405 Air Park Road					-	-	-	N/A
N. Charleston, SC 29418					-	-		
					-	-		
					-	-		
					-	-		
B & M Marine Repairs, Inc. NOR		52	0	40	NONE	NONE	NONE	N/A
313 S. Main Street					-	-	-	N/A
Norfolk, VA 23523					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Baker Marine Corporation		1200	1100	10	W300	NONE	300	20
P.O. Box 190					-	-	1130	20
Ingleside, TX 78362					-	-		
					-	-		
					-	-		
					-	-		
Balehi Marine, Inc.		200	70	70	W180	NONE	200	10
P.O. Box 600					W130	-	600	10
Lacombe, LA 70445					W120	-		
					-	-		
					-	-		
					-	-		
Banks Rigging Corporation		49	39	40	NONE	NONE	NONE	N/A
1120 West Olney Road					-	-	-	N/A
Norfolk, VA 23507					-	-		
					-	-		
					-	-		
					-	-		
Barbour Boat Works, Inc.		100	53	80	W170	M200	400	14
P.O. Box 1069					W170	M140	1000	13
New Bern, NC 28560					W170	-		
					-	-		
					-	-		
					-	-		
Bath Iron Works Corporation	C	6000	6000	4800	W700	F1000	900	43
700 Washington Street					W700	F550	3006	38
Bath, ME 04530					W650	-		
					-	-		
					-	-		
					-	-		
Bay City Marine		270	88	150	M140	NONE	292	17
3040 Terminal Avenue					-	-	700	16
National City, CA 92050					-	-		
					-	-		
					-	-		
					-	-		
Bay Shipbuilding Corporation	C	1360	1280	1400	W730	G1000	1000	22
605 North Third Avenue					-	F640	5700	17
Sturgeon Bay, WI 54235					-	G180		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A/-	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Bender Shipbuilding & Repair	C	640	640	325	W250	F660	845	25
P.O. Box 42					W250	F414	2900	42
Mobile, AL 36601					W200	F414		
					W200	M160		
					W130	-		
					W130	-		
Berwick Shipyard		35	30	10	NONE	F240	200	20
P.O. Box 168					-	F115	400	12
Berwick, LA 70342					-	-		
					-	-		
					-	-		
					-	-		
Best Repair Company		100	60	40	NONE	NONE	NONE	N/A
P.O. Box 11107					-	-	-	N/A
Norfolk, VA 23517					-	-		
					-	-		
					-	-		
					-	-		
Bethlehem Steel Corp. Beaumont	C	1546	344	600	W970	NONE	1000	40
P.O. Box 3031					W900	-	4500	35
Beaumont, TX 77704					-	-		
					-	-		
					-	-		
					-	-		
Bethlehem Steel Corp. Sabine	C	250	0	250	NONE	F950	NONE	40
P.O. Box 1448					-	-	-	N/A
Port Arthur, TX 77641					-	-		
					-	-		
					-	-		
					-	-		
Bethlehem Steel Corp. Sparrows	C	2318	480	1700	W800	G1200	1260	26
Sparrows Point Yard					W800	-	3970	26
Sparrows Point, MD 21219					-	-		
					-	-		
					-	-		
					-	-		
Blount Marine Corporation		130	120	90	W200	NONE	400	2[illegible]
461 Water Street					-	-	450	10
Warren, RI 02885					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Bludworth Bond Shipyard, Inc.	A	890	180	125	NONE	F300	450	30
P.O. Box 5065					-	F245	1500	22
Houston, TX 77262					-	F220		
					-	F210		
					-	-		
					-	-		
Blue Streak Industries, Inc.		120	110	20	W150	NONE	320	14
P.O. Box 92					-	-	320	8
Pearlington, MS 39572					-	-		
					-	-		
					-	-		
					-	-		
Boeing Marine Systems		800	800	30	L140	NONE	150	20
P.O. Box 3707					-	-	300	15
Seattle, WA 98124					-	-		
					-	-		
					-	-		
					-	-		
Boland Marine & Mfg. Co.	A	1250	320	125	NONE	NONE	800	36
P.O. Box 53287					-	-	800	26
New Orleans, LA 70153					-	-		
					-	-		
					-	-		
					-	-		
Bollinger Mach. Shop & Shipyd.	A	520	350	350	W300	F300	5400	15
P.O. Box 250					W165	F205	11900	12
Lockport, LA 70374					W120	F180		
					W120	M165		
					-	M120		
					-	M120		
Boston Marine Industrial Park	C	20	20	20	NONE	G1150	910	26
60 Congress Street					-	-	3472	26
Boston, MA 02109					-	-		
					-	-		
					-	-		
					-	-		
Boston Whaler, Inc.		361	260	350	NONE	NONE	NONE	N/A
1149 Hingham Street					-	-	-	N/A
Rockland, MA 02370					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Bourg Drydock & Service Co. P.O. Box 1852 Houma, LA 70361		65	40	40	W220 L220 - - - -	F220 M220 - - - -	2000 2300	10 8
Brady Marine Repair, Inc. 399-419 Trumbull Street Elizabeth, NJ 07206		60	60	30	NONE - - - - -	NONE - - - - -	NONE -	N/A N/A
Braswell Shipyards, Inc. 3 Braswell Street Charleston, SC 29405	A	444	171	175	NONE - - - - -	F200 - - - - -	600 900	35 21
Broward Marine, Inc. 1601 S.W. 20th Street Fort Lauderdale, FL 33315		200	130	150	W145 - - - - -	M130 - - - - -	110 1000	10 10
Buck Kreihs Company P.O. Box 53305 New Orleans, LA 70153-3305	A	350	180	70	NONE - - - - -	NONE - - - - -	1120 1120	40 30
Burger Boat Company, Inc. P.O. Box 7 Manitowoc, WI 54220	A	212	140	200	W150 W150 W150 - - -	NONE - - - - -	450 450	17 17
C & C Marine Maintenance Co. P.O. Box 118 Georgetown, PA 15043		22	15	20	NONE - - - - -	F200 - - - - -	400 400	10 8

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A / _	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Caddell Dry Dock & Repair Co.	C	200	160	150	NONE	F450	820	35
P.O. Box 327					-	F330	1900	20
Staten Island, NY 10310					-	F261		
					-	F256		
					-	F181		
					-	F177		
Cameron Shipbuilding		213	199	100	W200	NONE	100	37
P.O. Box 5243					W200	-	100	25
Brownsville, TX 78521					W200	-		
					-	-		
					-	-		
					-	-		
Campbell Industries	A	268	0	70	W252	F389	640	35
501 E. Harbor Drive					W234	F200	2185	25
San Diego, CA 92112					W128	F200		
					-	F140		
					-	-		
					-	-		
Carotex, Inc.		80	80	30	W190	NONE	300	15
110 Yacht Club Road					-	-	800	12
Port Arthur, TX 77640					-	-		
					-	-		
					-	-		
					-	-		
Caruthersville Shipyard, Inc.		553	71	90	W205	NONE	220	9
P.O. Box 1134					L220	-	220	20
Caruthersville, MO 63830					-	-		
					-	-		
					-	-		
					-	-		
Cavanaugh Machine Works, Inc.		50	21	20	NONE	NONE	NONE	N/A
220 East 'B' Street					-	-	-	N/A
Wilmington, CA 90744					-	-		
					-	-		
					-	-		
					-	-		
Cenac Shipyard		200	200	150	L350	S350	300	15
P.O. Box 2617					-	-	3000	12
Houma, LA 70361					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Channel Shipyard Co., Inc.		30	0	30	NONE	NONE	450	22
P.O. Box 926					-	-	1200	10
Highlands, TX 77562					-	-		
					-	-		
					-	-		
					-	-		
Charles Love Company		135	68	40	NONE	NONE	NONE	N/A
1400 Park Avenue					-	-	-	N/A
Emeryville, CA 94608					-	-		
					-	-		
					-	-		
					-	-		
Charleston Naval Shipyard	C	4724	4389	4100	NONE	G741	1260	35
Naval Base					-	G607	11700	37
Charleston, SC 29408					-	G580		
					-	F400		
					-	-		
					-	-		
Chesapeake Shipbuilding, Inc.		110	100	70	L300	NONE	400	14
710 Fitzwater Street					-	-	1100	12
Salisbury, MD 21801					-	-		
					-	-		
					-	-		
					-	-		
Classon Industries		35	20	20	NONE	NONE	NONE	N/A
42 Commerce Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
Coastal Iron Works, Inc.		160	100	90	NONE	F260	260	30
P.O. Box 2548					-	M150	440	16
Corpus Christi, TX 78403					-	-		
					-	-		
					-	-		
					-	-		
Coastal Marine Engineering Co.		55	50	30	NONE	NONE	NONE	N/A
1050 25th Street					-	-	-	N/A
San Francisco, CA 94107					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A / _	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Coastal Marine Serv. of Texas	A	350	150	100	NONE	NONE	840	25
1051 Houston Avenue					-	-	1440	25
Port Arthur, TX 77640					-	-		
					-	-		
					-	-		
					-	-		
Colberg, Inc.		120	12	10	W170	M120	65	26
P.O. Box 1288					-	M120	130	23
Stockton, CA 95201					-	-		
					-	-		
					-	-		
					-	-		
Colonna's Shipyard, Inc.	C	375	205	250	NONE	F620	900	30
400 E. Indian River Road					-	M430	2480	32
Norfolk, VA 23523					-	M400		
					-	M230		
					-	M230		
					-	-		
Commercial Marine Service, Inc.		30	6	20	W225	M210	420	22
258 Cannery Street					W110	M110	1080	25
Terminal Island, CA 90731					-	-		
					-	-		
					-	-		
					-	-		
Continental Maritime San Diego	A	507	73	400	NONE	NONE	650	41
1445 Crosby Street					-	-	3977	40
San Diego, CA 92113					-	-		
					-	-		
					-	-		
					-	-		
Continental Maritime San Fran.	C	620	231	600	NONE	F664	1100	36
Pier 50-54					-	-	3139	31
San Francisco, CA 94107					-	-		
					-	-		
					-	-		
					-	-		
Crumler's Machine & Weld Svcs.		20	15	20	NONE	F120	800	20
P.O. Drawer 848					-	-	800	10
Bridge City, TX 77611					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
D. N. Kelley & Son, Inc.	A	80	50	50	M130	M140	700	20
32 Water Street					-	M110	700	14
Fairhaven, MA 02719					-	-		
					-	-		
					-	-		
					-	-		
Darby Marine & Supply, Inc.		53	20	50	NONE	M100	168	8
P.O. Box 188					-	-	352	6
Mt. Pleasant, SC 29464					-	-		
					-	-		
					-	-		
					-	-		
Davis Boat Works, Inc.		99	28	50	NONE	S140	780	12
99 Jefferson Avenue					-	-	780	12
Newport News, VA 23607					-	-		
					-	-		
					-	-		
					-	-		
Delta Marine Industries, Inc.		204	204	100	NONE	F100	300	15
1608 South 96th Street					-	-	600	10
Seattle, WA 98108					-	-		
					-	-		
					-	-		
					-	-		
Delta Marine, Inc.		33	0	30	NONE	F120	900	30
P.O. Box 2191					-	-	1650	18
Wilmington, NC 28402					-	-		
					-	-		
					-	-		
					-	-		
DESCO Marine, Inc.		500	175	30	W100	NONE	690	9
P.O. Box 1480					-	-	690	16
St. Augustine, FL 32085-1480					-	-		
					-	-		
					-	-		
					-	-		
Detyens Shipyards, Inc.	C	440	426	350	NONE	F500	510	18
Route #2, Box 180					-	F290	1190	26
Mt. Pleasant, SC 29464					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Diamond Manufacturing Co.	A	175	175	50	W300	M250	625	40
P.O. Box 608					-	-	625	18
Savannah, GA 31402					-	-		
					-	-		
					-	-		
					-	-		
Dixie Machine Welding & Metal	A	350	300	250	NONE	NONE	1360	40
P.O. Box 53355					-	-	1360	25
New Orleans, LA 70153					-	-		
					-	-		
					-	-		
					-	-		
DMI, Inc.		123	37	10	NONE	NONE	200	20
Route 1, Box 2					-	-	200	15
Wando, SC 29492					-	-		
					-	-		
					-	-		
					-	-		
Dockside Machine & Ship Repair		45	45	30	NONE	NONE	NONE	N/A
P.O. Box 665					-	-	-	N/A
Wilmington, CA 90748					-	-		
					-	-		
					-	-		
					-	-		
Dolphin Ship Repair		32	25	10	NONE	NONE	NONE	N/A
P.O. Box 1016					-	-	-	N/A
Cape Canaveral, FL 32920					-	-		
					-	-		
					-	-		
					-	-		
Dorchester Industries, Inc.		65	65	40	W180	M175	150	15
Shipyard Division Front Street					W180	M110	670	15
Dorchester, NJ 08316					W180	-		
					-	-		
					-	-		
					-	-		
Duwamish Shipyard, Inc.		240	80	40	W120	F200	183	40
5658 West Marginal Way, S.W.					-	F135	633	25
Seattle, WA 98106					-	M120		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
E & S Marine Service, Inc.		50	16	20	NONE	NONE	NONE	N/A
163-171 Dwight Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
Eastern Marine, Inc.	A	929	929	200	W395	M130	600	12
P.O. Box 1009					W195	-	800	14
Panama City, FL 32401					W195	-		
					-	-		
					-	-		
					-	-		
Eastern Technical Enterprises	A	50	0	50	NONE	NONE	600	23
2429 Ferry Road					-	-	600	17
Virginia Beach, VA 23455					-	-		
					-	-		
					-	-		
					-	-		
Edward E. Gillen Company		40	5	10	NONE	NONE	3000	28
218 W. Becher Street					-	-	3000	29
Milwaukee, WI 53207					-	-		
					-	-		
					-	-		
					-	-		
Farmer's Marine Copper Works		150	100	80	NONE	NONE	350	18
P.O. Box 748					-	-	350	40
Galveston, TX 77553					-	-		
					-	-		
					-	-		
					-	-		
First Coast Shipbuilding		30	0	30	W250	NONE	500	12
P.O. Box 1808					-	-	500	12
Green Cove Springs, FL 32043					-	-		
					-	-		
					-	-		
					-	-		
Fischer Marine Repair Corp.		25	9	20	NONE	NONE	NONE	N/A
38 Coffey Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Fishermen's Boat Shop, Inc.	A	45	30	40	L130	M130	1100	35
1016 14th Street					-	-	1750	35
Everett, WA 98201					-	-		
					-	-		
					-	-		
					-	-		
Flohr Metal Fabricators, Inc.		75	31	40	W200	NONE	250	30
P.O. Box 70469					W150	-	250	10
Seattle, WA 98107					W120	-		
					-	-		
					-	-		
					-	-		
Foss Shipyard	A	180	90	150	NONE	F210	410	28
660 West Ewing Street					-	F200	1560	18
Seattle, WA 98119					-	-		
					-	-		
					-	-		
					-	-		
Fraser Shipyards, Inc.	C	600	328	20	G830	G625	1000	27
P.O. Box 997					G130	-	5300	18
Superior, WI 54880					-	-		
					-	-		
					-	-		
					-	-		
Fredeman Shipyard, Inc.	A	120	120	100	W250	F300	450	40
P.O. Box 129					-	F300	1700	16
Sulphur, LA 70663					-	F300		
					-	M208		
					-	-		
					-	-		
Freeport Shipbldg & Marine Rpr.		45	15	20	L150	M100	NONE	10
P.O. Box 417					-	-	-	N/A
Freeport, FL 32439					-	-		
					-	-		
					-	-		
					-	-		
Fulton Shipyard, Inc.		66	50	30	NONE	M125	200	35
P.O. Box 400					-	-	200	10
Antioch, CA 94509-0039					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
G & W Industries, Inc.	A	100	27	70	NONE	NONE	650	24
1898 Carter Road					-	-	650	24
Cleveland, OH 44113					-	-		
					-	-		
					-	-		
					-	-		
G. Marine Diesel Corp.		28	24	20	NONE	NONE	NONE	N/A
528 Columbia Street					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
G. Marine Diesel of Florida		10	5	10	NONE	NONE	NONE	N/A
999 Eller Drive					-	-	-	N/A
Fort Lauderdale, FL 33316					-	-		
					-	-		
					-	-		
					-	-		
G. Marine Diesel of Virginia		10	0	10	NONE	F326	1000	25
307 Campostella Road					-	-	1150	22
Norfolk, VA 23523					-	-		
					-	-		
					-	-		
					-	-		
General Dynamics Electric Boat	C	19452	17711	18000	L560-6	G625	705	38
Eastern Point Road					W530	G600	4120	38
Groton CT 06340					W530	G515		
					W475	-		
					W475	-		
					-	-		
General Electric Co. - Mass.		50	0	10	NONE	NONE	NONE	N/A
29 Sawyer Road, Bldg #1					-	-	-	N/A
Waltham, MA 02254					-	-		
					-	-		
					-	-		
					-	-		
General Electric Co. - N.J.		75	75	50	NONE	NONE	NONE	N/A
Paramus Plaza IV					-	-	-	N/A
Paramus, NJ 07652					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
General Electric Co. - Penn.		150	150	50	NONE	NONE	NONE	N/A
1000 First Avenue, Room 377					-	-	-	N/A
King of Prussia, PA 19406					-	-		
					-	-		
					-	-		
					-	-		
General Engineering & Machine		120	58	100	NONE	NONE	1400	32
840 Harrison Street					-	-	1400	32
San Francisco, CA 94107					-	-		
					-	-		
					-	-		
					-	-		
General Marine Service, Inc.		25	0	10	NONE	NONE	NONE	N/A
305 Third Street					-	-	-	N/A
Jersey City, NJ 07302					-	-		
					-	-		
					-	-		
					-	-		
General Offshore Corporation		150	60	150	NONE	NONE	NONE	N/A
P.O. Box 21726					-	-	-	N/A
Fort Lauderdale, FL 33335					-	-		
					-	-		
					-	-		
					-	-		
General Ship Corporation	C	345	279	350	W225	G678	900	34
400 Border Street					W225	-	2600	30
East Boston, MA 02128					-	-		
					-	-		
					-	-		
					-	-		
General Ship Repair Corp.	A	80	0	40	NONE	F200	435	40
1449 Key Highway					-	-	845	20
Baltimore, MD 21230					-	-		
					-	-		
					-	-		
					-	-		
Gladding-Hearn Shipbuilding		60	30	60	W150	NONE	150	35
1 Riverside Avenue					-	-	150	10
Somerset, MA 02725					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Golten Marine Company		30	26	30	NONE	NONE	NONE	N/A
322-330 Broad Avenue					-	-	-	N/A
Wilmington, CA 90744-5869					-	-		
					-	-		
					-	-		
					-	-		
Goudy & Stevens		110	46	80	W240	M100	170	30
Church Street					W180	M100	270	18
East Boothbay, ME 04544					-	-		
					-	-		
					-	-		
					-	-		
Goven Inc.	A	30	20	30	NONE	S110	500	45
P.O. Box 3542					-	-	1500	20
Portland, ME 04104					-	-		
					-	-		
					-	-		
					-	-		
Gretna Machine & Iron Works		415	180	100	G300	G320	1500	12
P.O. Box 215					-	-	1500	8
Harvey, LA 70059					-	-		
					-	-		
					-	-		
					-	-		
Gulf Coast Fabrication, Inc.	A	120	60	100	W600	NONE	500	30
P.O. Box 529					G390	-	4000	26
Pass Christian, MS 39571					-	-		
					-	-		
					-	-		
					-	-		
Gulf Copper & Mfg. Corp.	A	150	80	60	NONE	NONE	2400	40
320 Houston Avenue					-	-	2400	22
Port Arthur, TX 77640					-	-		
					-	-		
					-	-		
					-	-		
Gulf Craft, Inc.		120	110	70	W145	NONE	200	12
Rural Route #1, Box 395					W145	-	350	12
Patterson, LA 70392					W100	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Fos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Gulf-Tampa Drydock Company	C	360	162	250	NONE	F450	1100	34
1200 Sertoma Drive					-	F180	2800	36
Tampa, FL 33605					-	-		
					-	-		
					-	-		
					-	-		
Gunderson, Inc.		325	32	10	W750	AVAIL	1000	40
4350 N.W. Front Avenue					-	-	1000	30
Portland, OR 97210					-	-		
					-	-		
					-	-		
					-	-		
H Hansen Industries	A	100	15	20	NONE	NONE	800	27
2824 Summit Street					-	-	1150	14
Toledo, OH 43611					-	-		
					-	-		
					-	-		
					-	-		
Halter Marine, Inc.- Equitable	A	1124	1124	90	W310	NONE	400	30
P.O. Box 8001					W110	-	1318	45
New Orleans, LA 70182					-	-		
					-	-		
					-	-		
					-	-		
Halter Marine, Inc.- Moss Pt.		530	530	170	W400	NONE	215	14
P.O. Box 767					W300	-	640	20
Moss Point, MS 39563					-	-		
					-	-		
					-	-		
					-	-		
Harrison Bros. DD & Repair Yd.		30	25	30	W150	F164	150	40
P.O. Box 1843					-	F130	500	10
Mobile, AL 36601					-	M150		
					-	-		
					-	-		
					-	-		
HBC Barge, Inc.		480	55	125	W220	M320	300	9
P.O. Box 510					W220	-	750	8
Brownsville, PA 15417					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Hendry Corporation	A	90	80	70	NONE	F235	1000	16
P.O. Box 13228					-	F235	1000	16
Tampa, FL 33681					-	-		
					-	-		
					-	-		
					-	-		
Henry Knese, Inc.		40	30	30	NONE	NONE	NONE	N/A
22-44 119th Street					-	-	-	N/A
New York, NY 11356					-	-		
					-	-		
					-	-		
					-	-		
Hoboken Shipyards, Inc.	C	351	206	200	NONE	G1064	1200	42
Military Ocean Term., Bldg.100					-	-	1900	42
Bayonne, NJ 07002					-	-		
					-	-		
					-	-		
					-	-		
Hoffert Marine, Inc.		90	90	50	NONE	NONE	NONE	N/A
1700 E. Church Street					-	-	-	N/A
Jacksonville, FL 32202					-	-		
					-	-		
					-	-		
					-	-		
Holmes Brothers Enterprises		100	37	70	NONE	NONE	690	40
P.O. Box 3246					-	-	690	40
Portsmouth, VA 23701					-	-		
					-	-		
					-	-		
					-	-		
Honolulu Shipyards, Inc.	A	190	188	150	NONE	F378	600	40
Pier 41, P.O. Box 30989					-	F200	800	30
Honolulu, HI 96820					-	M223		
					-	-		
					-	-		
					-	-		
Houma Fabricators, Inc.		130	85	40	W240	NONE	275	16
1100 Oak Street					-	-	800	16
Houma, LA 70363					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Houston Ship Repair	A	180	105	125	NONE	NONE	700	22
P.O. Box 489					-	-	700	15
Channelview, TX 77530					-	-		
					-	-		
					-	-		
					-	-		
Huckins Yacht Corporation		71	20	70	L100	S100	65	10
P.O. Box 7069					-	-	440	10
Jacksonville, FL 32210					-	-		
					-	-		
					-	-		
					-	-		
Hudson Drydocks, Inc.		98	69	50	NONE	F260	250	14
P.O. Box 1781					-	F260	300	14
Morgan City, LA 70381					-	F165		
					-	M115		
					-	-		
					-	-		
Hunters Point Shipyard	C	1200	910	250	NONE	G1092	1390	30
c/o SUPSHIP San Francisco					-	G1005	7740	36
San Francisco, CA 94135					-	G742		
					-	G410		
					-	G410		
					-	G410		
Hydraulic Fishing Supply, Inc.		46	35	30	W180	NONE	NONE	N/A
720 30th Street					-	-	-	N/A
Anacortes, WA 98221					-	-		
					-	-		
					-	-		
					-	-		
Industrial Welding & Machine		60	25	40	NONE	NONE	300	40
430 Commercial Street					-	-	300	10
Portland, ME 04104					-	-		
					-	-		
					-	-		
					-	-		
Ingalls Shipbuilding Division	C	10804	9599	8200	W690	F850	2500	38
P.O. Box 149					W650-4	G460	7250	35
Pascagoula, MS 39568-0149					W550	-		
					L850-5	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
International Shipbldg. Corp.		25	0	10	W250	NONE	250	12
P.O. Box 4278					W150	-	700	14
Houma, LA 70361-4278					-	-		
					-	-		
					-	-		
					-	-		
Intracoastal City DD & Shpbldg		80	40	30	W250	F210	400	14
Route #3, Box 196-K					-	F200	400	14
Abbeville, LA 70510					-	F130		
					-	F100		
					-	-		
					-	-		
J. M. Martinac Shipbuilding		203	203	50	W250	NONE	72	27
401 East 15th Street					W250	-	140	19
Tacoma, WA 98421					-	-		
					-	-		
					-	-		
					-	-		
Jacksonville Shipyards, Inc.	C	2200	2000	950	W500	F900	800	34
P.O. Box 2347					W400	F745	8000	34
Jacksonville, FL 32203					-	F660		
					-	F400		
					-	F220		
					-	F200		
Jakobson Shipyard, Inc.		100	65	30	W135	M150	500	13
West End Avenue					W135	M100	1000	15
Oyster Bay, NY 11771					-	-		
					-	-		
					-	-		
					-	-		
Janoush Marine, Inc.		80	75	20	F182	F162	195	9
P.O. Box 640					-	-	195	9
Rosedale, MS 38769					-	-		
					-	-		
					-	-		
					-	-		
Jay Maritime Agency Corp.		40	18	10	W200	NONE	NONE	N/A
451 Spencer Street					-	-	-	N/A
Staten Island, NY 10314					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
JoMar Corp. of Tidewater		125	50	50	NONE	NONE	280	30
P.O. Box 5119					-	-	280	24
Suffolk, VA 23435					-	-		
					-	-		
					-	-		
					-	-		
Jonathan Corporation	A	700	139	450	NONE	NONE	558	40
101 Third Street					-	-	1900	32
Norfolk, VA 23510					-	-		
					-	-		
					-	-		
					-	-		
Keehi Marine, Inc.		40	0	40	W130	S110	300	32
24 Sand Island Road					-	-	415	25
Honolulu, HI 96819					-	-		
					-	-		
					-	-		
					-	-		
Kettenburg Marine		80	70	80	W110	S100	500	35
P.O. Box 6448					-	-	650	12
San Diego, CA 92106					-	-		
					-	-		
					-	-		
					-	-		
KMD Ship Repair of Cape Canav.		75	8	20	NONE	NONE	NONE	N/A
234 S.W. 29th Street					-	-	-	N/A
Fort Lauderdale, FL 33315					-	-		
					-	-		
					-	-		
					-	-		
Koch-Ellis Barge & Ship Svc.	A	25	25	10	NONE	NONE	450	40
P.O. Box 9130					-	-	2000	20
Westvego, LA 70094					-	-		
					-	-		
					-	-		
					-	-		
Kremer Marine, Inc.		20	15	20	W100	NONE	100	10
1408 Covan Road					-	-	500	11
Gulfport, MS 39501					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Lake Union Drydock Company 1515 Fairview Avenue East Seattle, WA 98102	A	220	97	60	W175 W175 - - - -	F340 F240 F240 F136 - -	1000 4200	30 35
Lamarco, Inc. P.O. Box 3449 New Orleans, LA 70177		50	22	20	NONE - - - - -	NONE - - - - -	1000 1000	35 35
Lantana Boatyard, Inc. 808 N. Dixie Highway Lantana, FL 33462		240	180	150	S130 L130 - - - -	NONE - - - - -	257 4200	8 8
LEEVAC Shipyards P.O. Box 1190 Jennings, LA 70546		300	280	90	W400 W200 - - - -	F250 - - - - -	800 2000	12 10
Legnos Boat Industries, Inc. 973 North Road, Route 117 Groton, CT 06340		10	8	10	NONE - - - - -	NONE - - - - -	NONE -	N/A N/A
Lockheed Shipbuilding Co.- SAV P.O. Box 9666 Savannah, GA 31412	A	169	102	40	W200 - - - - -	S160 - - - - -	430 1310	16 18
Lockheed Shipbuilding Co.- SEA 2929 16th Avenue S.W. Seattle, WA 98134	C	3009	2611	900	W690 W640 W640 - - -	F643 - - - - -	610 3580	30 30

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Lockheed Shipbuilding Co.-GULF		80	0	80	NONE	NONE	NONE	N/A
P.O. Box 2249					-	-	-	N/A
Gulfport, MS 39505					-	-		
					-	-		
					-	-		
					-	-		
Long Beach Naval Shipyard	C	3894	3259	2900	NONE	G1050	1220	48
Code 100					-	G667	13510	35
Long Beach, CA 90822-5099					-	G667		
					-	-		
					-	-		
					-	-		
Louisiana Dock Company		240	203	70	NONE	F240	1050	40
P.O. Box 23206					-	F200	1050	10
Harahan, LA 70183					-	F200		
					-	-		
					-	-		
					-	-		
Louisiana Dock Company, Inc.		145	119	70	NONE	M300	195	10
P.O. Box 146					-	F250	500	10
Wood River, IL 62095					-	F200		
					-	F200		
					-	F195		
					-	F180		
Lyon Shipyard, Inc.		130	61	100	NONE	M250	300	25
P.O. Box 786					-	M200	300	25
Norfolk, VA 23501					-	M150		
					-	-		
					-	-		
					-	-		
M & W Marine Services, Inc.	A	60	40	60	W125	F120	600	17
601 Jefferson Avenue					-	-	600	15
Newport News, VA 23607-6113					-	-		
					-	-		
					-	-		
					-	-		
Main Iron Works, Inc.	A	350	350	125	W180	F200	500	15
P.O. Box 1918					W180	F160	500	15
Houma, LA 70361					W180	F150		
					-	F140		
					-	F100		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Mainstream Shipyards & Supply		140	120	80	NONE	F160	350	12
P.O. Box 1559					-	F140	350	35
Greenville, MS 38701					-	F100		
					-	-		
					-	-		
					-	-		
Marathon LeTourneau - Gulf Div.	C	950	849	275	W1100	NONE	1600	18
P.O. Box 3189					-	-	2100	28
Brownsville, TX 78520					-	-		
					-	-		
					-	-		
					-	-		
Marathon LeTourneau-Marine Div.		1476	25	350	W150	F150	NONE	12
LeTourneau Rural Station					-	-	-	N/A
Vicksburg, MS 39180					-	-		
					-	-		
					-	-		
					-	-		
MARCO Seattle		250	160	100	W220	F250	250	30
2300 W. Commodore Way					W200	F125	500	25
Seattle, WA 98199					W108	-		
					-	-		
					-	-		
					-	-		
Mare Island Naval Shipyard	C	6069	6069	4800	W519	G719	3950	36
Code 100					W467	G672	19270	39
Vallejo, CA 94592					-	G499		
					-	G420		
					-	-		
					-	-		
Marine & Industrial Svcs. Inc.		19	15	10	NONE	NONE	200	40
P.O. Box 1855					-	-	200	28
San Juan, PR 00903					-	-		
					-	-		
					-	-		
					-	-		
Marine Hydraulics Internat'l	A	236	122	150	NONE	NONE	650	25
543 E. Indian River Road					-	-	2150	25
Norfolk, VA 23523					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Marine Industries Northwest		210	88	70	NONE	M200	350	20
P.O. Box 1275					-	-	550	20
Tacoma, WA 98401					-	-		
					-	-		
					-	-		
					-	-		
Marine Power & Equip. Co., Inc.	C	520	325	175	L700	F400	1100	30
1441 N. Northlake Way					L650	F400	3000	50
Seattle, WA 98103					L250	F300		
					L180	F220-3		
					-	S400		
					-	-		
Marine Repairs, Inc.		16	16	10	NONE	NONE	NONE	N/A
P.O. Box 5307					-	-	-	N/A
Houston, TX 77262					-	-		
					-	-		
					-	-		
					-	-		
Marinette Marine Corporation	A	925	645	900	W300-2	S125	1070	21
Ely Street					W250	S125	2135	20
Marinette, WI 54143					W250	-		
					W250	-		
					W250	-		
					W150	-		
Marisco Ltd.		80	30	80	NONE	F500	NONE	34
607 Ala Moana Blvd.					-	-	-	N/A
Honolulu, HI 96813					-	-		
					-	-		
					-	-		
					-	-		
Maritime Contractors, Inc.	A	110	0	80	NONE	F390	1350	30
201 Harris Avenue					-	F200	2200	34
Bellingham, WA 98225					-	M120		
					-	-		
					-	-		
					-	-		
Master Boat Builders, Inc.		100	100	20	W190	NONE	200	15
P.O. Box 702					W115	-	380	15
Bayou La Batre, AL 36509					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Master Marine, Inc.		202	64	40	W250	F180	400	14
P.O. Box 665					W180	F100	1890	12
Bayou La Batre, AL 36509					W105	-		
					-	-		
					-	-		
					-	-		
McDermott Int'l-Morgan City SY	A	985	370	275	W300	F250	600	13
P.O. Box 588					W300	F180	800	14
Amelia, LA 70340					W220	F160		
					W220	F154		
					-	F150		
					-	-		
McDonough Iron Works		305	90	40	NONE	NONE	NONE	N/A
2701 New Strand					-	-	-	N/A
Galveston, TX 77550					-	-		
					-	-		
					-	-		
					-	-		
Melville Marine Industries	A	61	0	60	W130	S130	1200	30
P.O. Box 42					-	-	1200	32
Portsmouth, RI 02871					-	-		
					-	-		
					-	-		
					-	-		
Merce Industries, Inc.	C	300	0	150	G540	G680	800	21
3135 Front Street					-	-	1610	21
Toledo, OH 43605					-	-		
					-	-		
					-	-		
					-	-		
Merrill-Stevens Drydock Co.		140	77	150	NONE	M145	250	13
P.O. Box 1980					-	S145	675	9
Miami, FL 33101					-	-		
					-	-		
					-	-		
					-	-		
Metal Trades, Inc.		298	218	275	NONE	M208	325	20
P.O. Box 129					-	-	325	26
Hollywood, SC 29449-0129					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Metro Machine Corporation	C	512	249	400	NONE	F675	785	30
P.O. Box 1860					-	-	2040	35
Norfolk, VA 23501					-	-		
					-	-		
					-	-		
					-	-		
Miami Shipyards Corporation		120	120	70	L102	M185	240	15
615 S.W. 2nd Avenue					-	M125	490	13
Miami, FL 33130					-	-		
					-	-		
					-	-		
					-	-		
Mid-Coast Marine Oregon Corp.		150	56	100	W350	F350	220	31
P.O. Box 59					-	F350	1500	30
Coos Bay, OR 97420					-	F220		
					-	F110		
					-	-		
					-	-		
Mississippi Marine Corp.		230	70	50	L200	F300	NONE	26
P.O. Box 539					L200	F240	-	N/A
Greenville, MS 38702-0539					L200	F120		
					L200	-		
					-	-		
					-	-		
Missouri Drydock & Repair Co.		85	85	60	W120	F180	NONE	32
P.O. Box 700					W120	F180	-	32
Cape Girardeau, MO 63701					-	-		
					-	-		
					-	-		
					-	-		
Modutech Marine, Inc.		70	70	40	NONE	NONE	100	36
2218 Marine View Drive					-	-	100	30
Tacoma, WA 98422					-	-		
					-	-		
					-	-		
					-	-		
Monark Boat Company		470	42	300	NONE	NONE	NONE	N/A
P.O. Box 210					-	-	-	N/A
Monticello, AR 71655					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Moon Engineering Co., Inc.	A	205	86	200	NONE	NONE	650	40
2 Harper Avenue					-	-	2400	35
Portsmouth, VA 23707					-	-		
					-	-		
					-	-		
					-	-		
Moss Point Marine, Inc.		365	270	250	W400	F160	375	14
P.O. Box 1310					W300	-	1000	15
Escatawpa, MS 39552					W225	-		
					-	-		
					-	-		
					-	-		
Muller Boat Works, Inc.		20	15	20	NONE	M130	110	16
2214 E. 69th Street					-	M130	440	15
Brooklyn, NY 11234					-	-		
					-	-		
					-	-		
					-	-		
Nashville Bridge Company		640	231	125	W380	M200	NONE	10
P.O. Box 23?					W300	-	-	N/A
Nashville, TN 37202					W300	-		
					-	-		
					-	-		
					-	-		
National Marine Svc. Illinois		500	400	150	NONE	F220	1170	9
P.O. Box 38					-	F200	1470	20
Hartford, IL 62048					-	F200		
					-	F160		
					-	-		
					-	-		
National Marine Svc. Louisiana		200	150	90	NONE	F200-2	700	11
P.O. Box 1138					-	F160-2	1000	7
Harvey, LA 70059					-	F150		
					-	F140		
					-	-		
					-	-		
National Sea Products, Inc.		40	31	30	NONE	M200	275	30
79 Mechanical Street					-	-	750	16
Rockland, ME 04841					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
National Steel & Shipbuilding P.O. Box 85278 San Diego, CA 92138	C	5000	4575	3200	G980 W900 W900 W690 - -	F750 - - - - -	960 6500	35 32
New York Shipyard Corporation 1 Beard Street Brooklyn, NY 11231	C	150	100	150	NONE - - - - -	G690 F710 F475 F200 - -	1250 7518	32 40
Newpark Shipbuilding & Repair P.O. Box 5426 Houston, TX 77012	A	250	250	200	W300 W300 W150 W150 W150 W150	F295 F200 M275 M225 F220 -	450 2000	30 25
Newport News Shipbuilding 4101 Washington Avenue Newport News, VA 23607	C	23341	19826	20000	G1600 G1100 G960 W668 W447 -	G865 G637 G525 G468 - -	1370 8077	45 35
Newport Offshore, Ltd. 1 Washington Street Newport, RI 02840	A	330	112	70	NONE - - - - -	M300 L160 - - - -	1450 3920	45 35
Nichols Brothers Boatbuilders 5400 S. Cameron Road Freeland, WA 98249		120	120	100	W265 - - - - -	NONE - - - - -	195 195	25 16
Nicholson & Hall Corporation 41 Columbia Street Buffalo, NY 14203	A	225	12	125	NONE - - - - -	NONE - - - - -	1500 4000	25 25

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Nicholson Terminal & Dock Co.	A	200	80	80	NONE	F210	2000	26
P.O. Box 66					-	-	3500	26
River Rouge, MI 48218					-	-		
					-	-		
					-	-		
					-	-		
Nordic Diesel & Machine Co.		22	18	10	NONE	NONE	NONE	N/A
100 Hamilton Avenue					-	-	-	N/A
Brooklyn, NY 11231					-	-		
					-	-		
					-	-		
					-	-		
Norfolk Naval Shipyard	C	6668	5592	5800	NONE	G1082	1265	40
Code 100					-	G1002	20000	40
Portsmouth, VA 23709-5000					-	G712		
					-	G486		
					-	G456-2		
					-	G309		
Norfolk Shipbuilding & DD Co.	C	3922	3630	3400	W350	F1000	1030	45
P.O. Box 2100					-	F750	11810	42
Norfolk, VA 23501-2100					-	M450		
					-	F300		
					-	M200		
					-	-		
Norlantic Diesel, Inc.		31	31	20	NONE	M104	220	32
P.O. Box 151					-	M100	490	18
Fairhaven, MA 02719					-	-		
					-	-		
					-	-		
					-	-		
North American Shipbuilding		275	200	150	W300	NONE	1000	14
P.O. Box 308					-	-	1000	12
Larose, LA 70373					-	-		
					-	-		
					-	-		
					-	-		
North Florida Shipyard, Inc.	C	600	225	450	NONE	F500	1600	32
P.O. Box 3255					-	-	3390	32
Jacksonville, FL 32206					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Northwest Marine Iron Works		2000	1141	500	AVAIL	AVAIL	AVAIL	40
5555 N. Channel Ave., Bldg. 2					-	-	-	40
Portland, OR 97217					-	-		
					-	-		
					-	-		
					-	-		
Offshore Shipbuilding		360	360	50	W300	NONE	1500	12
Route #3, Box 4785					-	-	1500	18
Palatka, FL 32077					-	-		
					-	-		
					-	-		
					-	-		
Oldman Boiler Works		20	20	10	NONE	NONE	NONE	N/A
32 Illinois Street					-	-	-	N/A
Buffalo, NY 14203					-	-		
					-	-		
					-	-		
					-	-		
Olympic Marine Service, Inc.	A	100	8	30	NONE	NONE	800	30
459 Degraw Street					-	-	800	30
Brooklyn, NY 11217					-	-		
					-	-		
					-	-		
					-	-		
Orange Shipbuilding Co., Inc.	A	[illegible]	35	30	W390	S300	1000	25
P.O. Box 1670					-	L150-6	1000	25
Orange, TX 77630-0518					-	-		
					-	-		
					-	-		
					-	-		
Pacific Drydock & Repair Co.	A	232	124	80	NONE	F390	600	32
321 Embarcardero					-	M160	2400	25
Oakland, CA 94606					-	-		
					-	-		
					-	-		
					-	-		
Pacific Fisherman, Inc.	A	60	36	60	NONE	F140	500	25
5351 24th Avenue, N.W.					-	S160	1300	30
Seattle, WA 98107					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Pacific Marine Ship Repair Inc.		80	0	40	L210	M210	335	25
Port of Umpqua Industrial Park					-	-	400	23
Reedsport, OR 97467					-	-		
					-	-		
					-	-		
					-	-		
Palmer Johnson, Inc.		90	88	90	W125	NONE	180	14
61 Michigan Street					W100	-	208	14
Sturgeon Bay, WI 54235					-	-		
					-	-		
					-	-		
					-	-		
Patti Shipyard, Inc.		80	20	20	W350	NONE	300	12
P.O. Box 271					-	-	430	14
Pensacola, FL 32592					-	-		
					-	-		
					-	-		
					-	-		
Pearl Harbor Naval Shipyard	C	3750	3432	2600	NONE	G1100	1670	45
P.O. Box 400					-	G1000	19940	40
Pearl Harbor, HI 96860					-	G1000		
					-	G580		
					-	M400		
					-	-		
Pearson Yachts		375	239	250	NONE	NONE	NONE	N/A
West Shore Road					-	-	-	N/A
Portsmouth, RI 02871					-	-		
					-	-		
					-	-		
					-	-		
Pennsylvania Shipbuilding Co.	C	1188	827	1000	W1100	F1100	1100	40
P.O. Box 498					W740	F400	4055	34
Chester, PA 19016					W740	-		
					W720	-		
					-	-		
					-	-		
Perth Amboy Dry Dock Company	C	121	90	80	NONE	F490	385	30
P.O. Box 348					-	F367	2180	24
Perth Amboy, NJ 08862					-	F334		
					-	F180		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Peterson Builders, Inc. 101 Pennsylvania Street Sturgeon Bay, WI 54235-0047	C	995	487	850	W410 W225 W220-2 W160-2 W130 W120-2	F342 - - - - -	410 1795	24 20
Philadelphia Naval Shipyard Code 100 Philadelphia, PA 19112	C	6644	6644	5100	NONE - - - - -	G1082 G1082 G984 G718 G432 -	1150 9920	40 40
PHILLYSHIP P.O. Box 1286 Philadelphia, PA 19105-1296		150	150	30	NONE - - - - -	NONE - - - - -	NONE -	N/A N/A
Platzer Shipyard, Inc. P.O. Box 24399 Houston, TX 77229		150	130	150	W300 W200 - - - -	M300 L300 L300 L300 L300 -	300 1000	14 8
Port Allen Marine Service Inc. P.O. Box 108 Port Allen, LA 70767	A	700	400	125	W297 W250 W195 - - -	F320 F297 F150 F150 - -	1060 1940	12 15
Portland Ship Repair Yard 5555 N. Channel Ave., Bldg. 50 Portland, OR 97208	C	92	85	80	W1000 W600 - - - -	F1100 F810 F634 - - -	3000 10300	40 40
Portsmouth Naval Shipyard Code 100 Portsmouth, NH 03801-5000	C	4474	4275	3700	W432 W397 W397 W397 - -	G686 G486 G433 - - -	700 2210	40 35

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Promet Marine Services Corp.	A	44	27	30	NONE	NONE	600	36
242 Allens Avenue					-	-	1700	36
Providence, RI 02905					-	-		
					-	-		
					-	-		
					-	-		
Puget Sound Naval Shipyard	C	6622	5863	5500	NONE	G1152	1400	36
Code 100					-	G1000	25000	40
Bremerton, WA 98314-5000					-	G998		
					-	G927		
					-	G867		
					-	G639		
Quality Boats Company, Inc.		11	3	10	NONE	NONE	30	4
Victory & Deep Creek Blvds.					-	-	150	4
Portsmouth, VA 23702					-	-		
					-	-		
					-	-		
					-	-		
Quality Shipbuilders, Inc.		135	100	30	W250	NONE	250	12
P.O. Box 704					-	-	500	16
Moss Point, MS 39563					-	-		
					-	-		
					-	-		
					-	-		
Quality Shipyards, Inc.		350	350	125	W600	F230	300	16
P.O. Box 1817					-	F190	1000	16
Houma, LA 70361-1817					-	F190		
					-	-		
					-	-		
					-	-		
R. E. Derecktor of R.I., Inc.	C	975	700	750	L500	F475	1525	30
Coddington Cove					L375	F200	2600	35
Middletown, RI 02840					L375	-		
					-	-		
					-	-		
					-	-		
R. E. Derecktor, Inc.		91	91	80	NONE	NONE	450	20
311 East Boston Post Road					-	-	640	10
Mamoroneck, NY 10543					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Red Fox Industries, Inc.		400	359	200	W280	NONE	610	12
P.O. Draver 640					-	-	909	12
Nev Iberia, LA 70560					-	-		
					-	-		
					-	-		
					-	-		
Reynolds Shipyard Corporation	A	50	40	30	NONE	NONE	440	40
200 Edgevater Street					-	-	440	17
Staten Island, NY 10305					-	-		
					-	-		
					-	-		
					-	-		
Runyan Machine & Boiler Works		180	50	100	NONE	M240	220	16
P.O. Box 12483					-	M150	637	14
Pensacola, FL 32573					-	M100		
					-	-		
					-	-		
					-	-		
Ryan Marine, Inc.		30	0	30	W310	NONE	200	12
P.O. Box 400					-	-	1400	10
Pearlington, MS 39572-0400					-	-		
					-	-		
					-	-		
					-	-		
RYSCO, Inc.		160	160	20	W250	S100	200	12
P.O. Box 662					-	-	1400	18
Rockport, TX 78382					-	-		
					-	-		
					-	-		
					-	-		
San Diego Shipbldg. & Repair		175	20	125	W300	S200	NONE	35
980 'F' Street					-	L200-6	-	20
Chula Vista, CA 92010					-	L200-6		
					-	-		
					-	-		
					-	-		
San Juan Shipyards, Inc.	A	55	55	40	NONE	M240	510	20
P.O. Box 13952					-	M150	1348	14
Santurce, PR 00908					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
San Pedro Boat Works	A	81	29	80	W150	F210	620	37
Berth 44, Outer Harbor					W110	-	620	38
San Pedro, CA 90731					-	-		
					-	-		
					-	-		
					-	-		
Saucer Marine Service, Inc.		90	75	60	NONE	F340	300	50
P.O. Box 3067					-	F300	300	18
New Orleans, LA 70177-3067					-	F300		
					-	F200		
					-	-		
					-	-		
SBA Shipyards, Inc.		256	100	70	W420	G500	1000	30
P.O. Box 1386					W300	M400	2000	10
Jennings, LA 70546					-	-		
					-	-		
					-	-		
					-	-		
Sea Motive Corporation		70	25	40	NONE	NONE	NONE	N/A
Radar Street, Bldg 296					-	-	-	N/A
Port Newark, NJ 07114					-	-		
					-	-		
					-	-		
					-	-		
Service Engineering Company	A	748	320	225	NONE	NONE	900	40
P.O. Box 7714					-	-	2700	35
San Francisco, CA 94120					-	-		
					-	-		
					-	-		
					-	-		
Service Marine Industries, Inc.		220	88	60	W200	F200	150	16
P.O. Box 3606					-	F165	250	12
Morgan City, LA 70381					-	F130		
					-	-		
					-	-		
					-	-		
South Point Barge Co., Inc.		15	13	10	NONE	F100	NONE	40
P.O. Box 333					-	-	-	20
South Point, OH 45680					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
South Portland Shipyard & MR 257 Front Street South Portland, ME 04106	A	45	38	20	W105 - - - - -	M210 - - - - -	600 600	40 15
Southern Oregon Marine, Inc. P.O. Box 1220 Coos Bay, OR 97420	A	102	56	100	L395 L200 - - - -	M395 F200 - - - -	480 1800	20 24
Southern Shipbuilding Corp. P.O. Box 1089 Slidell, LA 70459		260	260	225	W600 - - - - -	G350 F200 M200 M150 - -	200 250	14 16
Southwest Marine of San Diego P.O. Box 13308 San Diego, CA 92113-0308	C	1000	695	1000	NONE - - - - -	F655 F320 M235 M170 M120 -	700 2422	35 35
Southwest Marine of San Fran. P.O. Box 7644 (Foot of 20th) San Francisco, CA 94120-7644	C	453	256	50	W550 - - - - -	P950 F700 P378 P220 - -	800 3385	55 40
Southwest Marine of San Pedro P.O. Box 3600 San Pedro, CA 90731-7331	C	803	350	600	NONE - - - - -	F720 F220 - - - -	1500 3396	52 35
Southwestern Barge Fleet Svc. P.O. Box 845 Highlands, TX 77562		130	109	80	NONE - - - - -	F174 F100 - - - -	500 1700	12 12

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
St. Augustine Boat Works, Inc.		40	30	40	W100	S100	350	12
P.O. Box 1318					-	-	350	12
Palatka, FL 32078-1318					-	-		
					-	-		
					-	-		
					-	-		
St. Augustine Trawlers, Inc.		269	269	40	W250	M120	675	12
P.O. Box 619					W170	-	1040	12
St. Augustine, FL 32084					W120	-		
					W100	-		
					W100	-		
					-	-		
Steamco Corporation	A	90	82	90	NONE	F250	650	40
172 Lynhurst Avenue					-	-	1950	26
Staten Island, NY 10305					-	-		
					-	-		
					-	-		
					-	-		
Steel Style, Inc.	A	200	125	70	W300	M140	600	40
401 S. Water Street					-	-	1100	12
Newburgh, NY 12550					-	-		
					-	-		
					-	-		
					-	-		
Steiner Shipyard, Inc.		150	90	100	W125	NONE	100	14
P.O. Box 742					W125	-	600	12
Bayou La Batre, AL 36509					L125-3	-		
					L125-3	-		
					-	-		
					-	-		
Stephen Ransom, Inc.		50	50	40	NONE	NONE	NONE	N/A
Marsh & Intercoastal Streets					-	-	-	N/A
Port Newark, NJ 07114					-	-		
					-	-		
					-	-		
					-	-		
Stevens Technical Service Inc.		250	150	50	NONE	NONE	NONE	N/A
145 34th Street					-	-	-	N/A
Brooklyn, NY 11232					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Superior Boat Works, Inc.		350	150	50	W300	F160	500	12
P.O. Box 326					W300	F140	800	12
Greenville, MS 38702-0326					-	-		
					-	-		
					-	-		
					-	-		
Superior Marine, Inc.		75	0	30	NONE	M100	280	8
3132 Victory Boulevard					-	-	840	8
Portsmouth, VA 23702					-	-		
					-	-		
					-	-		
					-	-		
Swiftships, Inc.		700	89	200	NONE	F250	120	40
1105 Levee Road					-	F210	180	16
Morgan City, LA 70380					-	M165		
					-	-		
					-	-		
					-	-		
Swygert Shipyard, Inc.	A	253	227	150	NONE	M200	500	35
P.O. Box 308					-	-	900	35
Johns Island, SC 29455					-	-		
					-	-		
					-	-		
					-	-		
Tacoma Boatbuilding Co.	C	2250	2147	425	W430	M200	680	38
1840 Marine View Drive					W430	-	1960	32
Tacoma, WA 98422					W425	-		
					W425	-		
					-	-		
					-	-		
Tampa Shipyards, Inc.	C	1750	633	200	G744	G900	845	33
P.O. Box 1277					-	G744	3704	28
Tampa, FL 33601					-	G546		
					-	-		
					-	-		
					-	-		
Technical Fiberglass, Inc.		12	0	10	NONE	NONE	NONE	N/A
205 Webb Street					-	-	-	N/A
Clayton, NY 13624					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Textron Mar. Sys.(Bell-Halter)		553	70	300	W300-8	NONE	1270	17
6800 Plaza Drive					W200-3	-	2000	20
New Orleans, LA 70127					-	-		
					-	-		
					-	-		
					-	-		
Thames Shipyard & Repair Co.		60	58	60	W220	F220	300	38
P.O. Box 791					-	-	900	30
New London, CT 06320					-	-		
					-	-		
					-	-		
					-	-		
Thomas A. Short Co.		40	40	20	NONE	NONE	NONE	N/A
P.O. Box 8127					-	-	-	N/A
Emeryville, CA 94602					-	-		
					-	-		
					-	-		
					-	-		
Thomas Marine, Inc.		14	8	10	NONE	NONE	60	10
37 Bransford Street					-	-	1080	6
Patchogue, NY 11772					-	-		
					-	-		
					-	-		
					-	-		
Tidevater Equipment Corp.		160	120	90	W360	NONE	NONE	N/A
P.O. Box 57					-	-	-	N/A
Norfolk, VA 23501					-	-		
					-	-		
					-	-		
					-	-		
Todd Marine Enterprises		150	60	125	NONE	NONE	100	8
508 E. Indian River Road					-	-	100	10
Norfolk, VA 23512					-	-		
					-	-		
					-	-		
					-	-		
Todd Pacific Shipyards - L.A.	C	4800	4129	2100	L800	S800	1300	45
P.O. Box 231					W725	F711	4100	34
San Pedro, CA 90733-0231					W725	-		
					L600	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C/A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Todd Pacific Shipyards-Seattle	C	3948	3517	950	W450	F943	1400	40
P.O. Box 3806					W450	F650	4972	40
Seattle, WA 98124					W220	F420		
					-	-		
					-	-		
					-	-		
Todd Shipyards Corp.-Galveston	C	950	770	375	W450	F900	1157	40
P.O. Box 1550					-	F575	5108	35
Galveston, TX 77553					-	-		
					-	-		
					-	-		
					-	-		
Tony Stamis Engineering, Inc.		11	9	10	NONE	NONE	NONE	N/A
617-619 Broad Avenue					-	-	-	N/A
Ridgefield, NJ 07657					-	-		
					-	-		
					-	-		
					-	-		
Twin City Drydock & Marine		50	50	20	W170	F170	150	30
1065 E. Portage					-	F140	150	20
Sault Ste. Marie, MI 49783					-	-		
					-	-		
					-	-		
					-	-		
U. S. Coast Guard Shipyard	A	500	500	425	W300	F300	1000	25
Curtis Bay (Code 360)					W300	F300	3500	25
Baltimore, MD 21226					-	-		
					-	-		
					-	-		
					-	-		
Union Drydock & Repair Co.		80	60	80	NONE	F360	390	20
P.O. Box M-1539					-	-	1310	20
Hoboken, NJ 07030					-	-		
					-	-		
					-	-		
					-	-		
Universal Metal Machine Works		45	40	20	NONE	NONE	NONE	N/A
608 Union Street					-	-	-	N/A
Brooklyn, NY 11215					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Vaello Shipyard, Inc.		30	30	30	NONE	M100	50	40
P.O. Box 188					-	-	100	12
Catano, PR 00632					-	-		
					-	-		
					-	-		
					-	-		
Walker Boat Yard, Inc.		180	125	175	W200	F400	500	18
P.O. Box 729					W140	F250	3000	18
Paducah, KY 42002-0729					-	F250		
					-	F250		
					-	F100		
					-	-		
Washburn & Doughty Assoc. Inc.		60	20	50	W245	NONE	130	30
P.O. Box 226					W180	-	185	20
East Boothbay, ME 04644					W180	-		
					W130	-		
					-	-		
					-	-		
Watercraft America, Inc.		107	107	90	NONE	NONE	NONE	N/A
P.O. Box 1340					-	-	-	N/A
Oak Hill, FL 32759					-	-		
					-	-		
					-	-		
					-	-		
Wedtech of Michigan, Inc.		260	0	225	W600	F160	610	21
400 Lake Street					-	-	610	20
Ontonagon, MI 49953					-	-		
					-	-		
					-	-		
					-	-		
Wellcraft Marine		1450	700	1500	NONE	NONE	NONE	N/A
8151 Bradenton Road					-	-	-	N/A
Sarasota, FL 34243					-	-		
					-	-		
					-	-		
					-	-		
West Winds, Inc.		136	118	40	NONE	NONE	NONE	N/A
178 Townsend Street					-	-	-	N/A
San Francisco, CA 94107					-	-		
					-	-		
					-	-		
					-	-		

OPEN SHIPYARDS, SHIP REPAIR FACILITIES AND BOAT YARDS

NAME	C / A	PRODUCTION WORKERS Max 82-86	Oct'82	Oct'86 (Aprx)	FACILITIES Build Pos	Dock Pos	L-Pier T-Pier	Chan/ Berth
Westport Shipyard, Inc.		50	30	50	L120	M120	80	10
P.O. Box 308					-	-	80	10
Westport, WA 98595					-	-		
					-	-		
					-	-		
					-	-		
Willard Company		80	40	60	NONE	NONE	NONE	N/A
1250 North Grove Street					-	-	-	N/A
Anaheim, CA 92806					-	-		
					-	-		
					-	-		
					-	-		
Williams & Manchester Shipyard		30	14	30	NONE	M120	300	12
Lee's Wharf					-	-	900	6
Newport, RI 02840					-	-		
					-	-		
					-	-		
					-	-		
Wilmington Shipyard, Inc.		75	68	50	NONE	M240	225	30
P.O. Drawer 2028					-	-	675	14
Wilmington, NC 28402					-	-		
					-	-		
					-	-		
					-	-		
Yacht Maintenance Co., Inc.		75	58	30	L150	M150	220	28
101 Hayward Street					-	-	500	14
Cambridge, MD 21613					-	-		
					-	-		
					-	-		
					-	-		

LIST OF CLOSED SHIPYARDS (1980 - 1987)
DATA ITEM DESCRIPTION

1. A complete listing of the facilities and employment history for shipyards and ship repair firms that have closed since 1980 was required to accurately assess the decline in the shipbuilding industry. No single, complete source of data for closed shipyards existed. Several government and private agencies, including MARAD, the Shipbuilders Council of America, and the American Waterways Shipyard Conference maintained records of some closed shipyards and ship repair facilities for their own use. Their data was collected and collated by the Commission, and inquiries were made of the currently operating yards in an effort to create a comprehensive database of closed firms and facilities. The listing provided here is not considered all-inclusive, but represents the best efforts of the Commission to identify those facilities and jobs lost as a result of shipyard closings between January 1980 and August 1987. Where blanks appear in the data, an accurate number or date was unavailable.

2. Shipyards included in this list consider only those firms which have been:

   a. **Closed** - Facilities still exist, and are idle, but the company is out of business including facilities that are for sale, have been abandoned, or are not being maintained.

   b. **Temporarily Closed** - Facilities are in a care and maintenance status and can be readily activated.

   c. **Converted** - Property has been converted to another use and is no longer operated as a shipyard.

Shipyards which have been sold to another firm or operator and are currently being used as shipyards are <u>not</u> included.

3. The data fields listed are defined as follows:

   a. **NAME** - This data field contains the company name and last complete mailing address.

   b. **CLOSED**

      Mon - This column indicates a three letter abbreviation for the month in which the shipyard closed (if known).

      Yr - This column indicates the last two digits of the year in which the shipyard closed (if known).

   c. **JOBS** - This column indicates the number of production workers that were employed any time during the three years immediately preceding the closure of the shipyard and represents the number of production worker jobs lost.

Production workers are defined as those personnel charged as direct labor to a particular job including skilled, semi-skilled and unskilled workers; direct project engineers; first line supervisors and quality control inspectors.

d. **FACILITIES** - The three columns indicate some of the key facilities data for each shipyard.

Build Pos - A single letter indicates the type of building position available. The numerals following it indicate the maximum length of vessel (in feet) that could be constructed at that position. When a graving dock or marine railway was used for both construction and repair, it has been categorized by its most common use. Building positions with a maximum length under 100 feet are not included.

1) G - Graving drydock
2) W - Building way
3) M - Marine railway
4) L - Land level position

Dock Pos - A single letter indicates the type of drydocking capability available. The numerals following it indicate the maximum length of vessel (in feet) that could be accommodated by the drydock. Drydocks with a maximum length of under 100 feet are not included.

1) G - Graving drydock
2) F - Floating drydock
3) M - Marine railway
4) S - Synchro-lift
5) L - Land level position

L-Pier / T-Pier - The first value indicates the length (in feet) of the longest usable pier available in the shipyard. The second value indicates the cumulative total usable pier length available (in feet).

e. **REMARKS** - Brief comments or additional information on the shipyard which may be of interest.

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
	Mon Yr	Max Prv 3	Build Pos	Dock Pos	L-Pier T-Pier	Comments/Information
A. Moe & Company, Inc. 808 North Front Street Philadelphia, PA 19123	JUL 86	40	NONE - -	NONE - -	NONE - -	- - -
Allied Repair Service, Inc. P.O. Box 2236 Norfolk, VA 23501	- 85	355	NONE - -	F400 F100 -	500 1000	May be reopened by new operator; unable to confirm. Had Navy MSR.
American Shipbuilding Co.- CHI - Chicago, ILL	FEB 82	60	NONE - -	G694 - -	850 1300	- - -
American Shipbuilding Co.- LOR - Lorain, OH	- 83	930	G1021 - -	G708 - -	900 1800	- - -
Bergeron Industries, Inc. P.O. Box 39 St. Bernard, LA 70085	- 85	50	W370 - -	M300 P120 -	100 600	- - -
BFC Marine Service, Inc. Pier 5, Bldg. 56, Furman St. Brooklyn, NY 11201	- 86	20	NONE - -	NONE - -	NONE -	Had MARAD MLSR. - -
Boston Shipyard Corporation 256 Marginal Street East Boston, MA 02128	- 86	565	NONE - -	P670 P523 G256	1020 3111	Had G1176. Sold to a company to manufacture bridge sections only.
Burton Shipyard, Inc. P.O. Box 3636 Port Arthur, TX 77640	- 83	0	M200 - -	P270 - -	- -	South Gulf Terminal sold. -
California Shipbldg & DD Co. 1601 Water Street Long Beach, CA 90802	DEC 82	210	NONE - -	P389 P220 P200	326 739	Equipment from this yard sold to Southwest Marine, Inc.
Camden Ship Repair Co., Inc. Point and Erie Streets Camden, NJ 08102	MAY 86	60	NONE - -	M220 - -	NONE -	Sold to E.J. Brenneman Co. Not used for ship repair. Had Navy MSR.

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
	Mon Yr	Max Prv 3	Build Pos	Dock Pos	L-Pier T-Pier	Comments/Information
Canal Marine Repairs, Inc. P.O. Box 8097 New Orleans, LA 70182	- -	45	NONE - -	M100 - -	320 320	Had Navy MSR. - -
Chicago Bridge & Iron Co. 10 Washington Avenue Pascagoula, MS 39567	JUL 86	800	NONE - -	NONE - -	650 650	Facilities nov in care and maintenance. - -
Coastal Drydock & Repair Corp. Bldg. 292, Brooklyn Navy Yard Brooklyn, NY 11205	NOV 86	998	NONE - -	G1092 G1092 G760-2	1400 5740	Also had G465, G349. Company in bankruptcy. -
Delta Shipyard, Inc. P.O. Box 101 Houma, LA 70361	- 85	131	W300 W250 W120	F340 - -	1200 1200	- - -
Dillingham Ship Repair P.O. Box 4367 Portland, OR 97208	JUN 87	500	AVAIL - -	AVAIL - -	AVAIL -	Used facilities at the Portland Ship Repair Yard.
Dravo Corporation 4800 Grand Avenue Pittsburgh, PA 15225	APR 84	1550	W600-X W300-6 W300-5	M300 - -	350 650	Had twelve 600' ways. Company exists; does not build ships.
Dredgemaster International Co. - Hendersonville, TN	SEP 84	0	- - -	- - -	- -	- - -
Florida Ship Repair, Inc. 1825 Knox Road Tampa, FL 33605	- -	0	NONE - -	NONE - -	NONE -	- - -
Florida Ship, Inc. 2215 N.W. 14th Street Miami, FL 33125	- 84	0	NONE - -	F??? - -	- -	Had a 1000 ton capacity floating drydock.
General Dynamics Corp.- Quincy 97 East Howard Street Quincy, MA 02169	JUN 86	6000	G936 GB60-2 G850-2	NONE - -	820 4530	Property is for sale. - -

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
		Max	Build	Dock	L-Pier	
	Mon Yr	Prv 3	Pos	Pos	T-Pier	Comments/Information
Geosource, Inc. - Marine Div.	AUG 84	50	NONE	M400	-	Also had F138, F120
4040 Peters Road			-	F195	-	and F100.
Harvey, LA 70059			-	F156		-
Golten Ship Repair, Inc.	- -	18	NONE	NONE	NONE	Had Navy MSR.
-			-	-	-	-
Portland, ME			-	-		-
Guntert & Zimmerman, Inc.	- -	150	W400	-	-	-
P.O. Box 1688			-	-	-	-
Stockton, CA 95201			-	-		-
Halter Marine, Inc. - Chef Hwy	MAR 85	0	W194-3	NONE	-	Closed; no work.
19501 Chef Highway			W225-2	-	-	Some property sold to
New Orleans, LA 70129			-	-		Textron Marine Ind.
Halter Marine, Inc.- Chalmette	MAR 85	48	W160	NONE	NONE	Sold to an offshore
P.O. Box 29266			W110	-	-	supply co. in '85; not
New Orleans, LA 70189			-	-		used as a shipyard.
Halter Marine, Inc.- Chickasaw	AUG 86	1200	W500	F220	650	Placed in a care and
P.O. Box 11338			W150	-	1200	maintenance status in
Chickasaw, AL 36611			-	-		August 1986.
Halter Marine, Inc.- Lockport	AUG 86	400	W210	NONE	230	Placed in a care and
P.O. Box 278			W210	-	920	maintenance status in
Lockport, LA 70182			W210	-		August 1986.
Halter Marine, Inc.-Madisonvle	AUG 86	630	W350	NONE	260	Placed in a care and
Highway 21			W200	-	460	maintenance status in
Madisonville, LA 70447			W200	-		August 1986.
Havaiian Tuna Packers	JUN 86	419	NONE	NONE	220	Company in business
P.O. Box 238			-	-	220	but does not repair
Honolulu, HI 96809			-	-		ships or boats.
Hidden Harbor Boat Works, Inc.	- 85	42	NONE	NONE	NONE	Small boat builder
6111 East 21st Street			-	-	-	only.
Bradenton, FL 34203			-	-		-

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
	Mon Yr	Max Prv 3	Build Pos	Dock Pos	L-Pier T-Pier	Comments/Information
Horne Brothers, Inc. 2408 Harbor Road Newport News, VA 23607	DEC 83	414	NONE - -	NONE - -	665 1256	Land sold. Some assets bought by Newport News Shipbuilding & DD Co.
Hudson Engineering Company 520 York Street Elizabeth, NJ 07201	- 85	141	NONE - -	NONE - -	NONE - -	- - -
Hudson Shipbuilders, Inc. P.O. Box Q Pascagoula, MS 39567	APR 85	624	W235-2 W130-2 W185	NONE - -	300 580	- - -
Hunt's Steelship, Inc. Route #4, Box 76 Pine Bluff, AR 71602	JUN 86	0	W120 - -	NONE - -	110 140	Had only 12 employees in July 1985. -
Ingalls Marine, Inc. P.O. Box 368 Decatur, AL 35602	- 83	90	NONE - -	G496 - -	500 500	Facilities now in care and maintenance. -
Inland Marine Constructors Inc P.O. Box 5516 Evansville, IL 47715	JUN 86	50	W200 - -	NONE - -	NONE - -	All facilities and assets sold. -
Ira S. Bushey & Sons, Inc. - Brooklyn, NY	- 81	130	NONE - -	F455 F300 -	786 4086	- - -
Jeffboat, Inc. P.O. Box 610 Jeffersonville, IN 47130	JUL 86	871	W500 - -	F200 F200 -	2100 4980	Facilities now in care and maintenance. -
Kaiser Steel Corp. - Napa P.O. Box 390 Napa, CA 94559-0390	JUN 86	1696	NONE - -	G383 G300 G268-2	500 500	- - -
Levingston Shipbuilding Co. P.O. Box 968 Orange, TX 77631-0968	- 85	1450	W1100 W260-2 W180	NONE - -	520 1850	Has been in care and maintenance since 1985.

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
		Max	Build	Dock	L-Pier	
	Mon Yr	Prv 3	Pos	Pos	T-Pier	Comments/Information
Lockport Marine Company	JUL 87	300	AVAIL	AVAIL	AVAIL	Used facilities at
5555 N. Channel Ave., Bldg.#10			-	-	-	the Portland Ship
Portland, OR 97217			-	-		Reapir Yard.
Luther's Marine & Industrial	OCT 86	12	NONE	NONE	NONE	Survey form returned.
3505 Franklin Street			-	-	-	Phone disconnected.
Chesapeake, VA 23324			-	-		-
Marine Concrete Structures Inc	JUN 85	0	NONE	G350	-	Yard located in Port
2030 St. Charles Avenue			-	-	-	Bienville, MS.
New Orleans, LA 70130			-	-		-
Marine Ways Corporation	- -	120	NONE	M???	-	Had a small marine
P.O. Box 10464			-	-	-	railway.
Portland, OR 97210			-	-		-
Maryland Shipbuilding & DD Co.	JUL 84	1737	W600	F775	987	Had Navy MSR. Now used
P.O. Box 537			-	F650-2	5106	by Toyota Motors for
Baltimore, MD 21203			-	F200		import operations.
Matton Shipyard, Inc.	APR 83	80	W150	NONE	250	-
P.O. Box 645			-	-	375	-
Cohoes, NY 12047			-	-		-
Maxon Marine Industries, Inc.	FEB 86	105	W???	M???	-	Had 6 building ways
P.O. Box 69			-	-	-	and a 500 ton capacity
Tell City, IN 47586			-	-		marine railway.
McDermott Int'l - Gulfport SY	- 85	0	NONE	F160	-	-
P.O. Box 2249			-	-	-	-
Gulfport, MS 39503			-	-		-
McDermott Int'l-New Iberia SY	- 85	0	NONE	F180	-	-
P.O. Box 128			-	F160	-	-
New Iberia, LA 70560			-	-		-
Merritt Ship Repair Company	- 81	80	NONE	F320	600	-
-			-	-	1155	-
Oakland, CA			-	-		-

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
		Max	Build	Dock	L-Pier	
	Mon Yr	Prv 3	Pos	Pos	T-Pier	Comments/Information
Misener Industries, Inc.	- 85	209	W600	F210	450	-
P.O. Box 13625			-	-	1350	-
Tampa, FL 33681			-	-		-
Munro Drydock, Inc.	DEC 84	78	-	-	-	All facilities sold.
1 Winnisimmit Street			-	-	-	Had Navy MSR.
Chelsea, MA 02150			-	-		-
Paducah Marine Ways, Inc.	JAN 84	0	NONE	F200	-	New construction
P.O. Box 2305			-	-	-	equipment scrapped;
Paducah, KY 42001			-	-		repair equipment sold.
Perry Shipbuilding Company	NOV 86	130	NONE	NONE	1000	Property sold to land
P.O. Box 1318			-	-	5300	developer in Nov. '86.
Erie, PA 16512			-	-		-
Port Richmond Shipyard	- 85	200	NONE	G744	1560	-
-			-	G583	2100	-
Richmond, CA			-	G571-3		-
River & Offshore Services	- 86	0	NONE	NONE	1200	Maintains lay-berths
P.O. Box 474			-	-	2000	only. No longer does
Violet, LA 70092			-	-		any repair work.
RMI, Inc.	OCT 86	250	NONE	NONE	NONE	Assets liquidated via
1313 W. 24th Street			-	-	-	Chapter 7 bankruptcy.
National City, CA 92050			-	-		Had Navy MSR.
Rumsey Marine & Drydock Co.	- 80	52	W200	F200	450	Formerly North
Route 3, Box 6			-	-	900	Carolina Shipbuilding
Wilmington, NC 28405			-	-		& Drydock Co.
Savannah Shipyard Company	SEP 84	357	W350	G520	362	Building ways have not
P.O. Box 787			W350	-	793	been used since prior
Savannah, GA 31402			-	-		to 1980. Had Navy MSR.
Sea-Tac Alaska Shipbldg. Corp.	- 83	76	W250	F215	175	-
1112 Alexander Avenue			W150	-	175	-
Tacoma, WA 98421			-	-		-

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED		JOBS	FACILITIES			REMARKS
	Mon	Yr	Max Prv 3	Build Pos	Dock Pos	L-Pier T-Pier	Comments/Information
Sherman Shipyard, Inc.	-	-	20	NONE	NONE	NONE	-
-				-	-	-	-
Panama City, FL				-	-		-
Teh Tung Steamship Company	MAY	84	30	NONE	F600	840	-
-				-	-	840	-
Orange, TX				-	-		-
Texas Gulfport Shipbuilding Co	JUN	85	200	W550	F325	590	Was a subsidiary of
P.O. Box D				W400	F325	1270	Levingston Industries,
Port Arthur, TX 77640				-	-		Inc.
Texas Shipbuilding Company	-	80	204	W450	NONE	300	-
P.O. Box 24787				W265	-	525	-
Houston, TX 77013				-	-		-
Thomas Knutson Shipbldg. Corp.	-	-	35	W300	M???	128	Had 60 and 40 capacity
East Shore Road				-	M???	450	marine railways, and a
Halesite, NY 11743				-	-		Navy MSR.
Todd Shipyards Corp.- Alameda	-	83	550	NONE	F900	800	Todd moved to the
-				-	F523	2485	former Bethlehem Steel
Alameda, CA				-	-		yard in San Francisco.
Todd Shipyards Corp.- Houston	JUL	83	392	W500	F600	1844	Remains in a care and
P.O. Box 9666				-	-	3200	maintenance status.
Houston, TX 77015				-	-		-
Todd Shipyards Corp.-New Orlns	JAN	86	350	NONE	F544	1725	Facility is for sale.
P.O. Box 6158				-	F544	3756	-
New Orleans, LA 70174				-	F285		-
Tracor Marine Inc.	MAR	87	280	NONE	S360	780	Had Navy MSR.
P.O. Box 13107 Everglades Sta.				-	F300	1305	-
Fort Lauderdale, FL 33316				-	F270		-
Trans Ocean Shipyard	-	-	0	NONE	NONE	70	-
P.O. Box 4197				-	-	140	-
Brownsville, TX 78520				-	-		-

LIST OF CLOSED SHIPYARDS (1980 - 1987)

NAME	CLOSED	JOBS	FACILITIES			REMARKS
		Max	Build	Dock	L-Pier	
	Mon Yr	Prv 3	Pos	Pos	T-Pier	Comments/Information
Triple A South	OCT 86	400	NONE	F389	NONE	Equipment transferred
3350 Main Street			-	-	-	to San Francisco. In
San Diego, CA 92113			-	-		care and maintenance.
Twin City Shipyard, Inc.	MAY 86	130	W300	M225	1200	-
P.O. Box 43632			-	F100	1650	-
St. Paul, MN 55164			-	-		-
Weaver Shipyards	JUN 86	30	W200-5	M200	220	Owner said he would
P.O. Box 1487			W200-5	M180	730	write a letter to
Orange, TX 77630			-	F180		Secretary Dole.
Wiley Mfg. Co.- Equip.Sys.Div.	SEP 84	526	W390	NONE	NONE	-
P.O. Box 97			W340	-	-	-
Port Deposit, MD 21904			-	-		-
Willamette Iron & Steel Co.	- 81	430	NONE	F1000	1200	-
2800 N.W. Front Avenue			-	F763	1200	-
Portland, OR 97210			-	F550-2		-
Zidell Explorations, Inc.	AUG 84	0	NONE	NONE	NONE	Yard equipment is for
3121 S.W. Moody Avenue			-	-	-	sale.
Portland, OR 97201			-	-		-

METHODOLOGY AND ASSUMPTIONS USED IN THE SHIPYARD ANALYSIS

METHODOLOGY

The computer model used by the Commission to analyze the effects on the shipbuilding industries in specific mobilization scenarios was developed and is currently operated by the NAVSEA Shipbuilding Support Office (NAVSHIPSO). The Acquisition and Logistics Information Analysis System (ALIAS) is capable of manipulating ship construction schedules quickly and efficiently while considering a wide range of "real world" inputs.

Shipyard capability in terms of facilities was determined by examining the number of positions capable of construction or repair of a ship 400 feet in length or greater. Generally, ship building positions of 400 feet in length and 68 feet in beam, with a minimum channel water depth of 12 feet, are considered the minimum requirements for a seagoing vessel.

To determine if the aggregate number of currently existing shipyard facilities (54 core mobilization and 63 ancillary yards) would be adequate to support the surge phase of mobilization in 1987, the following methodology was employed:

-- The number of positions (building, docking, etc.) that could be used was determined by shipyard and coast. The number of building positions available to construct approximately 500 sea-going vessels is 85 for 1987 (27 East coast, 22 West coast, 32 Gulf coast and 4 Great Lakes). Of the core mobilization shipyards considered, eight are public yards and are not scheduled to undertake new construction.

-- The number of ships currently under construction or in maintenance and repair were assigned to the shipyards and positions they already occupied.

-- RRF ships to be reactivated were assigned to the shipyards previously assigned by MARAD, or into other available shipyards in the same general geographic areas. RRF activations would be accomplished by private shipyards or repair facilities on a priority basis. The workload expressed in man-days to activate an RRF ship varies by ship type and class. An average of 1200 man-days would be required to activate each RRF 5 and RRF 10 day ship. An average of 2200 man-days would be required to activate an RRF 20 day ship. No drydocking is normally required for RRF ships.

-- Following D-Day, battle-damaged ships (Navy and merchant) were assigned to shipyards with the requisite capabilities (e.g., Aegis class cruisers to Ingalls Shipbuilding or Norfolk Naval Shipyard, and merchant marine ships to any one of several private yards).

-- ISNAC vessels to be reactivated were assigned to one of the nearest Naval Shipyards.

-- NDRF vessels to be reactivated were assigned to one of the nearest private mobilization shipyards or facilities.

To determine whether the capabilities of the shipyard facilities projected to exist in the year 2000 (46 core mobilization and 46 ancillary yards) would be adequate to accomplish the requirements of the surge phase, the following methodology was used:

-- The number of positions (building, docking, etc.) that would be available was reduced per the year 2000 projection of available facilities. The number of building positions available to construct approximately 500 sea-going vessels is projected to be 67 for the year 2000 (21 East coast, 13 West coast, 30 Gulf coast and 3 Great Lakes). Of the core mobilization shipyards considered, eight are public yards and are not scheduled to undertake new construction.

-- The ships projected to be under construction or in maintenance and repair were assigned to the shipyards and positions projected to be available in the year 2000.

-- RRF ships were assigned to shipyard positions in the same manner as in 1987 but using the year 2000 projections for numbers of vessels and positions.

-- Battle-damaged ships were considered using the year 2000 projections for fleet size and composition, but with the same basic attrition and battle damage assumptions as used for 1987.

-- ISNAC vessels were assigned to shipyard positions in the same manner as in 1987 but using a year 2000 projection of the ISNAC fleet.

-- NDRF vessels were assigned to shipyard positions in the same manner as in 1987 but using a year 2000 projection of the NDRF.

ASSUMPTIONS

The assumptions used for the 1987 and the year 2000 analyses were as follows:

Scenario:

-- For both 1987 and the year 2000, the scenario conforms with appendix II to Defense Guidance FY 1988-1992 but requires completion of all shipyard work within 48 months of D-Day.

-- For 1987, D-Day is set at 1 October 1987 with M-Day a classified number of days earlier.

-- For the year 2000, D-Day is set at 1 October 1999 with M-Day a classified number of days earlier.

Activations:

Navy

-- For 1987, twenty-nine (ISNAC) Inactive Category B Ships in Navy Custody commence activation on D-Day. (Highest state of readiness.) A listing of ISNAC ships can be found in Table 6 of the Annex E.

-- For the year 2000, twenty-nine (ISNAC) Inactive Category B Ships in Navy Custody commence activation on D-Day. (Highest state of readiness.) It was recognized that the size and composition of the ISNAC fleet would be likely to change by the year 2000. It was assumed for modeling purposes, however, that the workload required to activate any future ISNAC fleet would be similar to that required for the ISNAC fleet existing in 1987.

-- Ships will be returned to their status at decommissioning.

-- Work will be accomplished in public and private shipyards.

Merchant

-- For 1987, the Ready Reserve Force (RRF) is composed of 87 ships. Activation shipyards are designated by MARAD in accordance with designated lay-up sites. Activations begin on M-Day.

-- For the year 2000, the Ready Reserve Force (RRF) is composed of 133 Ships as projected by MARAD. Activation shipyards were designated by the Commission staff in accordance with assumed lay-up sites and current MARAD selections. Activations begin on M-Day.

-- For 1987, the National Defense Reserve Fleet (NDRF) is composed of 189 ships available for activation as required. This is broken down as follows:

93 NDRF useful ships
96 Liberty ships

-- For the year 2000, the National Defense Reserve Fleet (NDRF) is composed of 126 ships projected by MARAD to be available for reactivation at M-Day.

-- Work will be accomplished at private shipyards.

Repair and Overhaul:

Navy

-- For 1987, the number and types of ships undergoing repair and maintenance was determined from Navy data for the current year.

-- For the year 2000, the number of ships undergoing repair and maintenance was determined by using future Navy workload projections, modified to reflect projected changes in the Naval fleet size. Ship types and model classes that existed in 1987 were substituted for those projected to exist in the year 2000 as they represented generic hulls for which repair and maintenance data was available.

-- Ongoing repair and maintenance was accelerated in accordance with draft OPNAV instruction 3061.xx.

-- No new maintenance work was scheduled to begin before M-Day plus 12 months.

-- Refuelings of nuclear ships and submarines proceeds as scheduled (no allowance was made for accelerated operations).

Merchant

-- Only voyage repairs and necessary maintenance for merchant ships will be accomplished post D-Day.

-- The number and types of ships undergoing repair and maintenance was assumed to be minimal.

Battle Damage:

-- The Naval and merchant fleet size and composition existing or projected to exist in the analysis year was used as the basis for determining battle damage. Attrition values used by the ALIAS model are as assigned and currently used by the Navy.

Navy

-- For planning purposes, a minimum of 10% of the Naval Fleet will be damaged, sunk, or lost during the first six months of a global conflict. This will drop to 5% during the next six months and then to 2.5% thereafter.

-- Sixty-seven percent of the Navy ships hit are assumed to be sunk or lost (damaged beyond repair).

-- All damage is severe (i.e. 75% loss of mission effectiveness for maximum workload effect) and is considered repairable; otherwise it would be attrited.

-- Sixty-two percent of repairable battle damage to U.S. Naval ships will be planned for repair in CONUS and Pearl Harbor (ships damaged beyond repair are classed as lost). The other 38% will be repaired by Intermediate Maintenance Activities (IMAs) in theater.

-- Battle damaged ships will be assigned to a shipyard with the requisite capability on the nearest coast (depending on workload).

-- Type of damage (hull-torpedo, topside-missile, or combination) will be randomly assigned.

-- Hull damage will require 50% of yard days in drydock.

-- Topside damage will require 20% of yard days in drydock.

Merchant

-- For planning purposes, 12% of all merchant ships supporting military operations or economic shipping requirements will be damaged, sunk, or lost during the first month of a global conflict. This will drop to 3% in the second month, 2% in the third month and 1% thereafter.

-- Fifty percent of the merchant ships hit are assumed to be sunk or lost (damaged beyond repair).

-- Of the 50% of the ships hit and requiring repair, all will be classed as severe and will require shipyard support.

-- Repair to U.S. ships in foreign ports/shipyards will be offset by the requirement to repair some foreign flag ships in U.S. ports.

Ongoing Construction

Navy

-- Ships on which construction has begun will be accelerated to complete in 67% of remaining time.

-- For 1987, the number and types of ships under construction was taken from Navy data for the current year.

-- For the year 2000, the number and types of ships under construction was determined by modifying Navy projections from the Extended Planning Annex (EPA) by reducing that projection to conform to an estimated ceiling of $10 billion per year in SCN appropriations. Ship types and model classes that existed in 1987 were substituted for those in the EPA as they represented generic hulls for which production data was available.

Merchant

-- No ongoing building programs were assumed.

New Construction Programs:

Navy

-- Ships awarded but not started by D-Day will be considered part of the increased building program and scheduled according to mobilization schedules.

-- Additional building programs in accordance with OPNAV letter 4000 Ser 421/7c393371 of 10 April 1987.

-- LCACs will be built in craft-building facilities.

-- New construction will be accomplished in 67% of the planned

peacetime construction duration.

Merchant

-- Merchant vessel building program in accordance with MARAD letter of March 1987 - 170 dry cargo ships and 80 product tankers for a total of 250 ships.

-- Initial planning will be for ships over 700 feet in length where building positions are available.

-- After building positions are fully utilized, plans for smaller ships - first 600 feet in length, then 500 feet - will be scheduled until all 250 ships required by MARAD are scheduled.

-- Accelerated construction periods were developed based on planning done for multi-purpose mobilization ship.

Shipyard Resources:

-- For 1987, only shipyards open and operating as of 1 June 1987 were considered as candidate mobilization shipyards. Selection was made by the Commission staff based on the following core and ancillary shipyard criteria:

- Facility has the capability of constructing or drydocking a vessel over 400 feet in length, or

- The capability of performing topside repair to a ship over 400 feet in length and has a channel depth of at least 12 feet.

-- For the year 2000, the number and location of shipyards projected to exist was determined by starting with the list of shipyards used in the 1987 analysis and reducing that number by arbitrarily removing some yards from the list to achieve an overall reduction of approximately 15% in facilities available.

-- No sabotage of U.S. facilities or approaches to them.

Shipyard Loading:

-- Priority for loading was as follows:
- Ongoing repair, overhaul and conversion
- RRF reactivations
- Battle damage/scheduled maintenance
  - Navy
  - Merchant
- NDRF and ISNAC reactivations
- Mobilization new construction
  - Navy new construction will have priority over merchant new construction
  - Combatant new construction will have priority over the new construction of amphibious and auxiliary ships
  - Amphibious and auxiliary ships will have equal new construction priority

-- Shipyard assignments are based on capability (previous experience first criteria), facilities, proximity to shipyards with proven capability and location of damaged ships.

-- Factors based on previous work performance will be assigned to each new construction shipyard. Perfect would be a factor of 1.0. Factors will be used to determine the building period (duration) for particular shipyards.

-- Many shipyards have not been provided with pre-planning guidance prior to mobilization, therefore time has been allowed for necessary engineering and other start-up functions before start of construction at these shipyards.

Supporting Industry:

-- U.S. industrial base is undamaged.

-- Labor is available for increased work week and expanded shifts.

-- Low priority, non-DOD work will be displaced.

-- Other service work continues as it had in peacetime.

-- Equipment selected for battle damage replacement will be randomly assigned by area or zone hit with approximately 20% of the major equipment in the zone damaged, randomly assigned by type of hit.

-- Foreign producers other than Canadians are not available.

-- The analysis will study the capability of supporting Government Furnished Equipment (GFE)/Government Furnished Material (GFM) requirements as well as Contractor Furnished Equipment (CFE).

INACTIVE SHIPS IN NAVY CUSTODY

MOBILIZATION ASSETS

Hull Type and Number	Ship Name	Location	Reactivation Days	Reactivation Approx. Mandays
AO 51	ASHTABULA*	Suisun Bay, CA	132	18K
DD 931	FORREST SHERMAN	Philadelphia, PA	132	69.5K
DD 937	DAVIS	Philadelphia, PA	132	69.5K
DD 940	MANLEY	Philadelphia, PA	132	69.5K
DD 941	DUPONT	Philadelphia, PA	132	69.5K
DD 942	BIGELOW	Philadelphia, PA	132	69.5K
DD 943	BLANDY	Philadelphia, PA	132	69.5K
DD 944	MULLINIX	Philadelphia, PA	132	69.5K
DD 948	MORTON	Pearl Harbor, HI	132	69.5K
DD 950	EDWARDS	Pearl Harbor, HI	132	69.5K
DD 951	TURNER JOY	Pearl Harbor, HI	132	69.5K
LSD 28	THOMASTON	Bremerton, WA	110	20K
LSD 29	PLYMOUTH ROCK	Portsmouth, VA	110	19.5K
LSD 30	FT. SNELLING	Portsmouth, VA	110	20K
LSD 31	POINT DEFIANCE**	Bremerton, WA	110	20K
LSD 35	MONTICELLO**	Bremerton, WA	110	20K
LST 1173	SUFFOLK COUNTY*	James River, VA	110	20.8K
LST 1177	LORRAIN COUNTY*	James River, VA	110	23.7K
LST 1178	WOOD COUNTY*,**	James River, VA	242	46K
CA 134	DES MOINES	Philadelphia, PA	198	256.6K
CA 139	SALEM	Philadelphia, PA	198	256.6K
LKA 112	TULARE*	Suisun Bay, CA	97	32.4K

Hull Type and Number	Ship Name	Location	Reactivation Days	Reactivation Approx. Mandays
ATF 105	MOCTOBI	Bremerton, WA	44	4.2K
ATF 110	QUAPAW	Bremerton, WA	44	4.2K
ATF 113	TAKELMA	Bremerton, WA	44	4.2K
CV 34	ORISKANY**	Bremerton, WA	638	1,505.3K
CVA 31	BON HOMME RICHARD**	Bremerton, WA	638	1,481.6K
CVS 12	HORNET**	Bremerton, WA	572	1,315.8K
CVS 20	BENNINGTON**	Bremerton, WA	506	952.6K

* IN MARAD CUSTODY, VICE ISNAC

** SHIPS WHOSE CONDITION OR EQUIPAGE MAKE THEM UNLIKELY CANDIDATES FOR REACTIVATION. BY 2000, ONLY THE TWO CRUISERS MIGHT BE CONSIDERED AS USEFUL REACTIVATION ASSETS.

SEALIFT ENHANCEMENT FEATURES

SEF	DESCRIPTION/STATUS	SHIPYARD MANDAYS REQUIRED
SEASHEDS	Special purpose, open topped, 40 foot long, 24 foot wide containers with bi-panel, self-activated, work through floor sections to provide temporary decks in container ships for outsize items. Shipboard work includes modifications to cell guide structures and installation of electrical receptacles. 659 units being bought (328 units delivered). Additional 350 units to be bought in FY-87. Several ships modified to carry 55 units. T-ACS will have installation.	800/ship
FLATRACKS	Flatracks are used on any container ship, without any special treatment, to carry such oversize items as main battle tanks. No ship modifications required. 358 units purchased. An additional 1187 units are to be bought in FY-87.	N/A
LASH LIFT BEAMS	A modification of LASH ship cranes to permit the use of lift beams to handle landing craft and causeway sections. Three of 15 ships have this SEF. Plan is to purchase two beams each year.	N/A
20 FOOT CONTAINER HARDPOINTS	The installation of hardpoints in large (40 and 45 foot) container cells to permit the carriage of 20 foot long containers. Installed as National Defense Feature (NDF). Approximately 25% of newer container ship capacity in the holds can be used without modifying the ship.	2,000/ship
ASTERN REFUELING	The installation of deck pads, piping modifications, manifolds, valves, and electrical power leads to permit the contingency installation of a reelable astern refueling rig. Sixty-four units on hand for NATO. Five MSC tankers have this feature installed. No future requirements except for MSC charters.	875/ship

SEF	STATUS	SHIPYARD MANDAYS REQUIRED
ALONGSIDE REFUELING CONSOL	The installation of a kingpost or tripod, or the modification of an existing hardpoint to support a padeye plus a quick closing valve and quick disconnect fitting to permit commercial tankers to receive the underway replenishment (UNREP) rig from, and pump its cargo to, a Navy ship. Fourteen MSC and 75 U.S. Flag tankers have this capability. All future MSC charter tankers will have this feature.	1,000/ship
ALONGSIDE REFUELING DELIVERY	A modular, self-contained UNREP station featuring a STREAM rig for delivery of POL to combatants. Two stations are required per ship. Six stations being purchased. Four stations to be bought in FY-87. Four interface structures installed on two MSC chartered tankers. Installations start in FY-88.	6,000/ship
UNREP CARGO CONSOL	UNREP and support equipment to transfer cargo using the STREAM rig received from a Military Logistics Support Force (MLSF) ship. Installed on seven of nine ships. The remaining two ships are to receive this feature during FY-87.	5,000/ship
UNREP CARGO DELIVERY	A modular, self-contained UNREP station composed of a power module, equipment module, operators station, kingpost, and a STREAM rig for cargo delivery. Two stations are required per ship. Two stations being purchased. Two additional stations planned for FY-87 purchase. Installations start in FY-89.	6,000/ship
CONTAINER SHIP STRIKE-UP	A system to enable a container ship to stow, breakout, and transfer palletized cargo in the manner of a breakbulk ship. R&D only. No current plans for equipment purchase or ship installations.	TBD
COMMS UPGRADE	The installation or upgrade of the radio facilities on RRF ships to provide them with standard capabilities. Program completes in FY-87.	160/ship

SEP	STATUS	SHIPYARD MANDAYS REQUIRED
NBC WASHDOWN	A simple system of clips to hold and orient the ship's fire hose nozzles in order to wet down the topside area. Installed during regular RRF shipyard period.	6/ship
VEHICLE TIEDOWNS	The installation of tiedown points to secure deck-stowed cargo such as vehicles or aircraft. Fifteen ships will receive this feature. Four have been completed. Nine more are planned for FY-87 and two for FY-88.	400/ship
AFOE MOORING	The installation of stowage and handling features to transport and emplace the AFOE mooring system (buoys, anchors, chains and fittings). Program has been deferred.	N/A
LIGHTER STOWAGE	Reinforcement of the main deck and hatch covers and installation of padeyes to accept landing craft. Eleven ships will receive this feature. Three have been completed. Eight are planned for FY-87.	800/ship
LIGHTER MOORING	Installation of recessed mooring bitts in the ship's side to moor lighters and small craft alongside for loading and unloading. Twenty-nine ships will receive this feature. Eleven have been completed. Eighteen are planned for FY-87 and FY-88.	400/ship
CRANE ENHANCED CONTAINER SHIP	The shipboard modifications to support the operation of a crane on a non-self-sustaining container ship to provide a self-offload capability. Design developed. No plans for demonstration or installations.	N/A
VERTREP	The shipboard installation required to provide a modular vertical replenishment (helicopter) deck. Installation on UNREP ships. One completed. Two ships to receive this feature in FY-87.	3,000/ship

SEF	STATUS	SHIPYARD MANDAYS REQUIRED
AMMO ISOLATION BULKHEAD	Installation of an additional bulkhead adjacent to the bulkheads of machinery spaces and uptakes, as required by law, to enable merchant ships to carry bulk military explosives. Installed on 4 ships. Two additional UNREP ships will receive this feature in FY-87.	1,000/ship
STREAM STATIONS (FUEL)	Self-contained STREAM stations (fuel) (MFDS) - in procurement.	TBD
STREAM STATIONS (DRY STORES)	Self-contained STREAM stations (dry stores) (MUDS) - in procurement.	TBD

DESIGN CHARACTERISTICS FOR MARAD MOBILIZATION SHIPS

The number and types of merchant ships that would be constructed to meet wartime demands would be based on the dynamics of the specific national emergency scenario at hand, including associated ship attrition rates and sealift replacement requirements. The SYMBA study led to the joint MARAD/Navy decision to order 250 merchant ships to support sealift mobilization requirements. The ship characteristics as profiled in the SYMBA study for the 170 multi-purpose cargo ships and 80 handy-size tankers are as follows:

Multi-purpose Cargo Ship

Design	C9-S-MA134a
Type	Breakbulk/Combination
Length Overall	723.5 Feet
Beam	105.5 Feet
Draft (Max/Design)	35 Feet/30 Feet
Total DWT	22,000 Tons
Crew Size	35 Persons
Propulsion	Steam Engine

Handy-size Tanker

Design	T6-M-98a
Type	Product Tanker
Length Overall	711.25 Feet
Beam	84.0 Feet
Draft (Max/Design)	34.4 Feet/32.5 Feet
Total DWT Max/Design)	35,100/32,280 Tons
Crew Size	26 Persons
Propulsion	Medium Speed Diesel

LIST OF MAJOR NAVAL AND MERCHANT SHIP COMPONENTS

A component or system require for Naval or merchant ship construction that meets one or more of the following criteria is considered a "major item."

Long Lead Time - Over 12 months from receipt of order to time of delivery.

Single or Sole Source -

Single: Currently only one qualified provider of an item; however, other sources are known to have the capability to manufacture.

Sole: Only one manufacturer is considered to have the capability to provide the item.

Foreign Source - Item is provided by a manufacturer whose plant is not in Canada, the United States, or a U.S. possession or trust territory.

Material Shortages - A lack of capacity exists at the lower tier levels for sub-components, metals, minerals, etc. needed to support the prime manufacturers.

Usage Rate - Planned force requirements (including battle damage estimates) are far in excess of normal peacetime demand.

Obsolescence - Planned force requirements (reactivations, battle damage, etc.) include items that are no longer in production. Includes the lack of capacity because the item is obsolete or no longer required in peacetime.

Low or Limited Production Capacity - Planned force requirements exceed industrial base capability. Deficits could be encountered sporadically throughout the scenario time period.

Impact on Ship Construction or Repair Schedules - Any item whose delayed availability would negatively affect the delivery of a ship in accordance with the original schedule.

HULL, MECHANICAL & ELECTRICAL ITEMS ANALYZED

Arresting Gear
Boilers, Main
Catapult System
Chain, Anchor
Condenser, Main
Console, Propulsion Control
Engine, Diesel
Gear, Reduction
Generator Set, Diesel
Generator Set, Gas Turbine
Generator Set, Steam Turbine
Power Supply, Frequency Changer
Propeller, Controllable Pitch
Propeller, Fixed Pitch
Shafting, Propulsion
Steering Gear
Switchboard, Interior Communications
Switchboard, Power Distribution
Switchboard, Weapons
Turbine, Gas
Turbine, Steam

COMBAT SYSTEMS ITEMS ANALYZED

Combat Direction Systems
Communications Systems
Electronic Warfare Systems
Navigational Aids
Radars
Sonars
Weapons
Weapons Direction Systems

APPENDIX F

SUMMARY OF U.S. OCEANBORNE FOREIGN TRADE (1982-2000)

UNITED STATES OCEANBORNE FOREIGN TRADE, 1982-2000

The table on the following page contains a summary of the actual and projected tons of cargo both imported and exported into the United States for the years 1982 to 2000. The data were provided by the Maritime Administration's Office of Policy and Plans. Data Resources, and Temple,Barker & Sloane's World Sea Trade Service, performed the cargo projection under contract to the Maritime Administration. Details about the methodology, approach, and data used to develop the summary table are on file at the Maritime Administration.

The cargo is categorized into inbound and outbound, and is shown as liner cargo (including containerizable and breakbulk), tanker, and non-liner (dry bulk) cargo. Totals for all categories are at the bottom of the table.

U.S. OCEANBORNE FOREIGN TRADE

MEASURED IN THOUSANDS OF METRIC TONS

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Inbound																			
-Containerizable	22,205	25,106	30,546	33,931	36,841	36,917	38,799	40,323	43,228	43,443	44,353	45,541	46,549	47,861	49,487	51,386	53,676	56,293	58,707
-Breakbulk	1,888	2,113	2,485	2,917	3,292	3,119	3,185	3,278	3,471	3,448	3,490	3,567	3,697	3,887	4,035	4,203	4,408	4,645	4,875
-Subtotal, Liner	24,093	27,219	33,031	36,848	40,133	40,036	41,984	43,601	46,699	46,891	47,843	49,108	50,245	51,748	53,522	55,589	58,084	60,938	63,582
-Tanker	241,968	230,519	236,067	218,805	266,847	295,128	312,476	337,824	342,074	336,284	325,233	313,708	300,510	292,346	285,690	279,845	275,555	272,225	267,257
-Non-Liner	78,735	79,036	102,592	105,498	105,010	100,638	102,050	103,367	108,381	106,328	106,056	105,650	104,601	104,773	106,105	107,714	109,943	112,631	114,727
TOTAL, Inbound	344,796	336,774	371,690	361,151	411,990	435,802	456,110	484,792	517,154	489,503	477,132	468,466	455,356	448,867	445,317	443,148	443,582	445,794	445,566
Outbound																			
-Containerizable	28,095	27,916	27,035	28,471	30,827	34,160	36,674	39,436	42,288	44,101	46,158	48,458	50,589	52,642	54,825	55,701	57,375	59,631	61,656
-Breakbulk	3,089	2,516	2,389	2,440	2,899	3,051	3,194	3,327	3,518	3,617	3,743	3,889	4,006	4,110	4,239	4,355	4,477	4,605	4,724
-Subtotal, Liner	31,175	30,432	29,424	30,911	33,726	37,211	39,868	42,763	45,806	47,718	49,901	52,338	54,595	56,752	58,264	60,056	62,052	64,236	66,380
-Tanker	63,456	29,351	29,884	31,321	32,240	36,278	38,208	41,463	43,326	43,729	44,550	44,557	44,396	44,333	42,713	42,570	42,682	42,975	43,333
-Non-Liner	270,809	269,593	281,308	262,510	252,345	263,793	270,765	285,446	299,232	310,050	325,917	343,269	358,572	378,205	399,604	419,017	439,623	461,991	485,271
TOTAL, Outbound	365,440	329,376	340,616	324,742	318,311	337,282	348,841	369,672	388,364	401,497	420,368	440,164	457,563	479,290	500,581	521,643	544,357	569,202	594,984
TOTAL																			
-Containerizable	50,300	53,022	57,581	62,402	67,668	71,077	75,073	79,759	85,516	87,544	90,511	93,999	97,137	100,503	103,512	107,087	111,251	115,924	120,363
-Breakbulk	4,968	4,629	4,874	5,357	6,191	6,170	6,379	6,605	6,989	7,065	7,233	7,447	7,703	7,997	8,274	8,558	8,885	9,250	9,599
-Subtotal, Liner	55,268	57,651	62,455	67,759	73,859	77,247	81,452	86,364	92,505	94,609	97,744	101,446	104,840	108,500	111,786	115,645	120,136	125,174	129,962
-Tanker	305,424	259,870	265,951	250,126	299,087	331,406	350,684	379,287	405,400	380,013	367,783	358,265	344,906	336,679	328,403	322,415	318,237	315,200	310,590
-Non-Liner	349,544	348,629	383,900	368,008	357,355	364,431	372,815	388,813	407,613	416,378	431,973	448,919	463,173	482,978	505,709	526,731	549,566	574,622	599,998
TOTAL, Inbound and Outbound	710,236	666,150	712,306	685,893	730,301	773,084	804,951	854,464	905,518	891,000	897,500	908,630	912,919	928,157	945,898	964,791	987,939	1,014,996	1,040,550

Source: Data Resources and Temple, Barker & Sloane, Inc.
World Sea Trade Service
Longterm Forecast (1987-2000), June, 1987

Note: Some 1982 tanker flows may be overstated (and non-liner understated) due to a misclassification of certain non-liner movements as tankers movements in the Census 305/705 data.

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APPENDIX G

SUMMARY OF PREVIOUS STUDIES ON THE U.S. MERCHANT MARINE

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APPENDIX G

OVERVIEW OF PREVIOUS STUDIES ON THE UNITED STATES MERCHANT MARINE[1]

1. This Appendix is based upon Volume III, Annex II of the "Report of the Commission on American Shipbuilding," Washington, D.C., October 1973.

INTRODUCTION

This annex has been prepared to summarize, as briefly as possible, the results of selected previous investigations and studies with respect to the United States Merchant Marine. For the sake of brevity, only Government or quasi-Government studies published since the Maritime Act of 1936, have, in general, been considered.

MARITIME COMMISSION'S "ECONOMIC SURVEY OF THE MERCHANT MARINE"(1937)[2]

In 1937 the Maritime Commission (Joseph P. Kennedy, Chairman; Emory S. Land; Edward C. Moran, Jr. Henry A. Wiley; and Thomas M. Woodward) submitted the report of their study conducted in accordance with the dicta of Congress which, in the Merchant Marine Act of 1936, had "directed the Maritime Commission to make a series of studies on various aspects of the shipping industry."

Those conducting the study were instructed to take nothing for granted, "not even the desirability of having a merchant marine under the American flag" and specifically addressed themselves to attempting to answer the following questions:

1. Should the U.S. attempt to compete in the international carrying trades?

2. What are the requirements of the United States?

3. What is the present status of the subsidized merchant marine?

4. What should be the policy of the United States?

5. What will it cost to maintain an adequate merchant marine in foreign trade?

The Commission, in their search for answers to these questions, retreated from offering specific replies in quantitative terms but did, in effect, examine each question in an objective, qualitative manner and, in their report, devoted a chapter to each examination.

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2. Economic Survey of the American Merchant Marine, U.S. Maritime Commission Report; Washington, D.C.: GPO, November 10, 1937.

The Commission offered a series of possible amendments to the Act of 1936. These amendments were not clearly or definitively presented but, in general, included such items as permitting construction abroad in cases where foreign costs were less than half the U.S. costs, permitting smaller down payments for domestic construction, and government indemnification in the case of cancellation of a subsidy by the government.

HARVARD GSB'S REPORT ON "THE USE AND DISPOSITION OF SHIPS AND SHIPYARDS AT THE END OF WORLD WAR II" (1945)[3]

Although the thrust of the report, and all of the recommendations therein, is confined to the stated purpose as described in the title, there are, nevertheless, portions of the study and analysis which have continuing pertinence. Specifically, there is a lengthy treatment of the subject of the maritime industry vis-a-vis national security and national welfare and a detailed, historical discussion of the shipbuilding industry and its status as a result of the Federal policies between the two world wars.

In answer, for example, to the oft-repeated question as to the need for the United States to build its own ships, their reply is an uneqivocal:

> 'Yes', despite...higher building costs, because the shipbuilding industry is essentially a munitions industry, and no world power can depend upon foreign nations to supply it with materials of war...But for the country to be prepared for the national defense it must have the shipbuilding capacity, experience, and know-how which can be expanded to meet the demands of its own fighting men and in all probability those of its future allies in future wars.[4]

They deplore the past failure of the country to be prepared for either of the two world wars with respect to shipping and shipbuilding (citing examples of changed plans, added costs, etc. which underlined these situations as, indeed, failures) and conclude that "National welfare demands and the same mistake shall not be made again, and that the third failure to have adequate ships and shipyards shall be avoided."[5]

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3. The Use and Disposition of Ships and Shipyards at the End of World War II, A Report prepared for the United States Navy Department and the United States Maritime Commission by the Graduate School of Business Administration, Harvard University; Washington, D.C.: GPO, June 1945.
4. Ibid., p. 10.
5. Ibid., p. 32.

REPORT OF THE PRESIDENT'S ADVISORY COMMITTEE ON MERCHANT MARINE (1947)[6]

In 1947 the President appointed an Advisory Committee on the Merchant Marine to study the problems of the American merchant Marine and of the American shipbuilding industry; and from the results of its studies to submit for the President's consideration recommendations as to the number and types of merchant vessels to be constructed annually on a stable long-range program, as well as any other recommendation that the Committee felt would prove helpful in assisting the development of a sound merchant marine policy.

The most pertinent of their recommendations to the President may be summarized as follows:[7]

1. Replace the Maritime Commission with two bodies--A Maritime Administration and a Maritime Board.

2. Since computation of CDS is such a tenuous procedure, do not try to compute it in detail but, for at least 3 years, place all contracts at the maximum CDS of 50% permitted by the 1936 Act. The Commission found it "impracticable to determine or to recommend a long-term shipbuilding program controlled or exclusively financed by the Government.")

3. With respect to a building program, recognize that relying on annual appropriations and annual contract authority prevents setting up a continuing, stable program and, therefore, establish either a revolving fund or a separate shipbuilding authorization with suitable contract authority.

4. Extend the applicability of depreciation and reserve funds to unsubsidized companies in foreign trade.

5. With respect to operating personnel, find some way of assuring efficiency, continuity, and reliability of service.

6. Attempt to attain wider geographical distribution of shipbuilding contracts and minimize violent fluctuations in workload by coordinating merchant marine and naval building requirements and spacing awards "so as to achieve a reasonably constant work load in the design, erection, and outfitting departments of the various

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6. Report of the President's Advisory Committee on the Merchant Marine, Washington, D.C.: GPO, November 1947.
7. Ibid., p. 7-18.

shipyards."

In attempting to arrive at some answers to the President's request for a definitive, long-range program, the Committee made a stab at estimating the passenger ship building program but could only emphasize the infeasibility of the larger task unless there were some hard decisions made first "at a high policy level in the Government:"

> It is manifestly impossible to state in precise quantitative terms what the size of the active peacetime merchant fleet should be in order to make certain the ability of the United States to meet the exigencies of future world conditions. On the other hand, it is essential in approaching current problems and in making plans for possible future contingencies that some minimum range or order of magnitude for the active merchant marine be established, a standard which will be recognized and accepted by the Government departments and agencies concerned. This minimum tonnage should be based upon past experience, present commitments, and anticipated future developments. Its ultimate determination should be made at a high policy level in the Government.[8]

"MERCHANT MARINE STUDY AND INVESTIGATION" BY THE SENATE'S COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE (1950)[9]

The Senate report by the Committee on Interstate and Foreign Commerce was the final result of a detailed, widely-ranging investigation by the Committee and its staff of "problems relating to the United States merchant marine."

The more pertinent of their recommendations, in addition to emphasizing a preference for the fostering of the privately owned component of the merchant marine, as opposed to a further build-up in the Navy's MSTS, and to reemphasizing "that for national-defense purposes reliance should be placed on a well-balanced American merchant marine," were that there be no fundamental changes to the 1936 Act (except such as would be required to extend CDS aid to all vessels in the foreign trade), and, further, in view of the confusing picture with respect to the quantitative expression of the true national-defense needs for a merchant marine, "That the several executive departments

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8. Ibid., pp. 51-52.
9. Merchant Marine Study and Investigation, Final Report (Report No. 2494) of the Committee on Interstate and Foreign Commerce, U.S. Senate, 81st Congress, 2nd Session, Pursuant to S. Resolution Authorizing the Committee on Interstate and Foreign Commerce to Investigate Problems Relating to the United States Merchant Marine, Washington, D.C.:GPO, 1950.

and the independent agencies charged with the responsibility prepare and submit to the Congress a firm statement of the minimum American vessel tonnage required for commerce and national defense."[10]

It will be noted in the following sections, as the results of the efforts of subsequent commissions and committees are described, just how difficult it has been to obtain this "firm statement" from "the several executive departments and the independent agencies."

REPORT ON "AMERICAN MERCHANT MARINE AND THE FEDERAL TAX POLICY" FROM THE SECRETARY OF COMMERCE (1952)[11]

This report, prepared by the Maritime Administrator for submission to the President, recommended no changes to the Federal tax policy then in existence with respect to the merchant marine.

The President had requested the investigation and report from the Department of Commerce primarily as a result of a previous report from the Treasury Department, which had concluded that "any government assistance which is deemed to be necessary and desirable to insure the existence of a strong merchant marine should be granted in the form of direct Government subsidies so that the public can count the cost and evaluate the benefits."[12] In transmitting that Treasury report to the Congress, the President agreed in principle with the basic conclusions of the Treasury Department study that tax benefits do not represent the most suitable means for providing the necessary assistance to our merchant marine, but that if these benefits were to be eliminated, careful consideration should be given to the possible effects on the maritime industry and to the development of alternative forms of assistance that might be necessary to assure the maintenance of an adequate merchant fleet.

The Congress subsequently made no changes in the tax benefit area but directed the Departments of Commerce and Treasury to prepare reports to be submitted as soon as possible to the next Congress. The President, accordingly, directed the Department of Commerce to undertake a study to determine whether complete elimination of the present tax benefits would require any increase in direct subsidy for the maritime industry, and in submitting such a report to include in substance the following:

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10. Ibid., p. 91.
11. American Merchant Marine and the Federal Tax Policy, A Report to the President from the Secretary of Commerce; Washington, D.C.: Department of Commerce, November 1, 1952.
12. Ibid., p. 1.

1. A critical evaluation of the overall scope of existing Federal aid and its relation to a sound promotional objective for this industry and in recognition of the general need for holding all Federal expenditures to the minimum essential level.

2. An account of the opportunities existing for the industry to increase its operating efficiency and to improve its financial position.

3. Analysis of changes needed in present Federal policies to permit the industry to take maximum advantage of such opportunities.

4. Recommendations as to the amount and most suitable form of any increased direct subsidy which would be necessary if tax benefits are completely eliminated.[13]

Among other things, the report concluded that:

"Tax benefits are granted commonly by foreign countries; indeed they are so deeply ingrained into their tax structures that such benefits are not usually limited to a particular industry, but are given to all industries, including shipping. They include many different forms such as accelerated depreciations, unrealistic normal depreciation rates, the use of replacement cost rather than original cost for depreciation purposes, tax deferment or tax exemption of income used for acquisition or construction of ships or other purposes, and favorable income tax rates. Some countries have not enacted any income tax legislation."[14]

"It is certain that without substitute aid the elimination of tax benefits during the past 15 years would have resulted in far less capital investments in shipping and in an American Merchant Marine far dissimilar in size and nature from that we now have."[15]

The report also included discussions of: (1) The qualitative importance of the merchant marine to the welfare of the U.S.; (2) Merchant marine history, 1921-1936; (3) The Merchant Marine Act of 1936; (4) The ship replacement program; (5) The projected size of "an adequate merchant marine" for future years; (6) Tax benefits available, U.S. versus foreign maritime industries; (7) Difficulties in attracting venture capital; (8) Elimination of tax benefits and alternative forms of aid if benefits were eliminated; and (9) Self-improvement for the industry.

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13. Ibid., p. 2.
14. Ibid., pp.71-72.
15. Ibid., pp. 73-74.

"MARITIME SUBSIDY POLICY" REVIEW BY THE DEPARTMENT OF COMMERCE (1954)[16]

This in-depth Department of Commerce report was the result of an in-house study conducted by the Office of the Under Secretary of Commerce for Transportation and the Maritime Administration.

Pertinent excerpts from the Report's section on "conclusions," based upon which a series of recommendations were offered, follow:

> 1. Our basic national maritime policy is sound. Indeed, its objectives are so fundamental to the national interest that their attainment should be given primary consideration at all times.
>
> 2. Present world conditions require the development and implementation of a program that will assure the fulfillment of our national maritime policy.
>
> 3. Experience in two World Wars and the Korean conflict demonstrated that the United States must depend upon its own merchant fleet and shipbuilding and repair industries for ocean transportation.
>
> 4. National defense...requires an active merchant fleet, in peacetime of about the size of that in operation on December 31, 1952.
>
> 5. A review of present traffic available for United States flag ships and of anticipated trends indicates that United States commercial needs probably will not require the employment of an active merchant fleet larger than that privately operated on December 31, 1952.
>
> 6. A construction program of 60 oceangoing ships a year would maintain the American shipbuilding industry at sufficient strength to provide a nucleus of shipyard manpower capable of expansion to meet estimated mobilization requirements...
>
> 9. Construction-differential subsidy aid will not of itself induce the construction of many new ships for operation in the foreign trade in the absence of a reasonable outlook for profitable operations.
>
> 10. Unless American-flag vessels can be operated

16. Maritime Subsidy Policy, A Review of Maritime Subsidy Policy in Light of Present National Requirements for a Merchant Marine and a Shipbuilding Industry, Prepared by the Office of the Under Secretary of Commerce for Transportation and the Maritime Administration; Washington, D.C.: Department of Commerce, April 1954.

profitably, many owners will seek to transfer them to foreign registry so as to take advantage of lower operating costs.

11. Operating costs, especially seagoing wage costs, are so much higher for United States-flag ships than for foreign-flag ships that it is becoming increasingly difficult for American ships, particularly those in the non-subsidized fleet, to compete in foreign trade...

12. The 'parity concept' is sound in principle and should be continued as the basis for the determination of operating and construction-differential subsidy. Efforts to overcome the difficulties inherent in its administration should be continued...

15. The cargo preference provisions of existing law should be continued in effect as part of our national maritime policy.

16. Discriminatory practices on the part of certain foreign governments materially affect the competitive position of the United States merchant ships operating in certain foreign trade areas. All reasonable measures should be taken to remove such discriminatory practices.

17. The reserve fleet is nearly adequate in numbers of dry-cargo and passenger-carrying vessels but critically deficient in tankers. It consists largely of slow emergency-type ships of limited usefulness built during World War II. The tanker shortage should be overcome and the reserve fleet upgraded with replaced vessels from the active fleet as soon as possible. Recent research and developmental programs looking to improving the speed and cargo handling ability of slow emergency-type laid-up cargo ships should be accelerated.

18. The essential trade route concept is sound and has contributed to the economic stability of the liner segment of our merchant fleet in the foreign trades. However, constant scrutiny of all trades should be given in order to assure that the granting of subsidy aid is in keeping with the traffic needs of each essential route...[17]

The unique aspect of this study lies in its serious and analytical attempt to arrive at quantitative requirements for ships (based both upon national defense and commercial shipping requirements) and for shipyards, both for peacetime and mobilization. That the study's implementation would have required additional funds, never appropriated by the Congress,

17. Ibid., pp. 109-121.

does not detract from the logical analysis and bold treatment by the study group.

NATIONAL ACADEMY OF SCIENCE'S REPORT ON "PROJECT WALRUS": THE ROLE OF THE U.S. MERCHANT MARINE IN NATIONAL SECURITY" (1959)[18]

This report, prepared by the National Academy of Sciences Advisory Panel on Wartime Use of the U.S. Merchant Marine, addressed the possible threats to our national security, a description of the Soviet's threat on the economic front, and the Panel's estimate of the ability of the U.S. merchant marine to respond to these threats.

Among the most pertinent of the Panel's findings were:[19]

> The U.S. merchant marine is deteriorating. Most of its ships are nearly over-age and long outmoded from the standpoint of modern design....The current rate of subsidy funding shows small promise of assuring timely replacement of the subsidized segment of the U.S. fleet. Most owners of non-subsidized U.S. flag ships have little incentive for even starting a replacement program. This decline is of serious concern to the Government, to industry, and very particularly to the military services. Energetic leadership is required to correct this trend.
>
> The United States must use its merchant marine defensively to counter economic thrusts--it must also use it positively as a weapon in the cold war arsenal. However, the challenge and the continued ability of the "flag of convenience" fleet to serve as an instrument of national policy is threatened.
>
> National Security maritime needs will be largely met by the construction of a fleet which can be commercially competitive with minimum subsidy. Both commercial and military interests can effectively use balanced speed in cargo handling and ocean transit, unitization of cargoes, and automation of ship operations to attain their goals. Such features entail capital intensification in order to reduce the number of man-days required to load, sail, and discharge a merchant ship.

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18. Project Walrus: The role of the U.S. Merchant Marine in National Security, Washington, D.C.: National Academy of Sciences -- National Research Council, 1959.
19. Ibid., pp. xi-xii.

The Study concludes, essentially, that:[20]

> If the United States intends to preclude complete dependence on foreign controlled shipping for the maintenance of its military and commercial lifelines, the only realistic solution lies in a drastic improvement in cargo handling and ship operating efficiency, together with significant advances in future ship design and construction. The Maritime Administration's continuing objective should be the development of a commercially competitive U.S. merchant marine requiring a minimum of subsidy. The Panel agrees that these advances are technologically feasible and can be commercially successful with minimum subsidy. To attain them it is imperative that management and labor be brought together in a common acceptance of the value to the whole industry of mechanization and automation both on the ships and in the ocean terminals.

To counter the expected argument that any competitive advantage which the United States could obtain through technological advances would be only transient and that the other countries would soon have the same advances, the Panel stated that they believed that the period required for foreign competitors to catch up would be a substantial one for the following reasons:[21] (1) They would have to pay significantly higher rates for borrowed capital than U.S. shipowners; (2) "The European merchant fleets have been largely renewed since World War II and are, in this sense, 'frozen in' for a period of perhaps ten years;" and (3) "Low costs of foreign labor make it much less economic to invest in labor-saving devices."

The Panel, in summary, recommended three main steps which "should be taken now" to assure a strong merchant marine in support of national security needs:[22]

> Immediate action by the Government is required to avoid the flights of "flag of convenience" shipping from effective U.S. control to uncontrolled registries under European flags. Some degree of exodus has already started.
>
> The Government should be prepared to take the lead in enlisting the cooperation of maritime labor and management to produce a technologically feasible fleet which will be commercially competitive with minimum subsidy. Without significant improvement in the attitudes in both labor and management towards technological advances, we can achieve no sound basis for competitive objectives.

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20. Ibid., p. 11.
21. Ibid.
22. Ibid., p. xii.

The goal of the Maritime Administration's Research and Development Program should be established as the creation of a U.S. merchant fleet which can be self-supporting without subsidy; and the Program should be so conducted as to lead rapidly to ships in being which demonstrate this possibility.

ARTHUR D. LITTLE, INC. REPORT FOR THE MARITIME ADMINISTRATION ON "SHIP CONSTRUCTION DIFFERENTIAL SUBSIDIES" (1961)[23]

The 1961 study that this report details was done on contract for the Maritime Administration to seek alternatives to the present practice of arriving at construction differential subsidies (CDS). After a somewhat lengthy examination of possible alternatives, such as the use of statistical methods, straight congressional determination, government purchase for charter, periodic purchase of foreign vessels, and periodic sale of United States vessels, the study concludes that:

As long as adherence to the parity formula is required under the Merchant Marine Act of 1936, it is not recommended that the present method of determining construction differential subsidies be modified in any important respect.[24]

In addition to examining the possible alternatives to the existing method of arriving at CDS, the report includes an excellent chapter on the "Legislative and Administrative Background of the Construction Differential Subsidy;" a philosophical as well as technical treatment of the parity concept which underlies the Merchant Marine Act of 1936; a forty-page examination of the economic aspects of shipbuilding (including past experience and future prospects); and a detailed explanation of the existing method of determining the subsidy.

A theme which runs through the entire report, and which is emphasized in the conclusions and recommendations, is that the primary problem lies in the fact that no one can arrive at any meaningful conclusions concerning the adequacy of subsidies until the government decides, or at least estimates, the specific defense requirements of the shipbuilding industry.

Accordingly, it is not surprising that the primary recommendation of the report is a reflection of this theme:

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23. Arthur D. Little, Inc., Ship Construction Differential Subsidies, Report to the Maritime Administration, U.S. Department of Commerce, Washington, D.C.: September 1961.
24. Ibid., p. 51.

It is strongly recommended that the national defense need for shipbuilding capabilities to be examined in detail, and that these needs be expressed in terms of the specific amounts of construction capacity and labor skills that must be maintained by subsidy in order to provide the necessary defense posture in shipbuilding.[25]

Additional recommendations, echoes of the recommendations of preceding studies and investigations, deal with: (1) insuring a more stable workload by requiring the Navy and Maritime Administration to coordinate their programs; and (2) expanding the Maritime Administration's R&D program.

MARITIME EVALUATION COMMITTEE'S REPORT TO THE SECRETARY OF COMMERCE ON "MARITIME RESOURCES FOR SECURITY AND TRADE" (1963)[26]

The report, and the investigation which preceeded it, were in response to a request by the Secretary of Commerce to the Chairman of the Business Advisory Council "to make a thorough survey and study of the Maritime Administration of the Department, with such a study to cover, among other things:[27]

1. The evaluation of the role of the maritime industry in the national economy.
2. The evaluation of the role of the maritime industry in national defense.
3. The determination of the merchant fleet required to meet the needs of 1 and 2 above.
4. An analysis of the competitive position of the merchant marine in respect to other modes of transportation.
5. The development of a program for transition to the type of merchant fleet required to fulfill the country's needs.

In their report, the Committee emphasized the need for maximum free enterprise incentives for the shipping and shipbuilding industries as a practical approach to the objectives of productivity, efficiency, and economy. They further endorsed the objectives of the policy statements of the Merchant Marine Act of 1936 as necessary for the assurance of maritime resources adequate for national security and recommended vigorous action to

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25. Ibid., pp. 18-19.
26. Maritime Resources for Security and Trade, Final Report of the Maritime Evaluation Committee to the Secretary of Commerce (Committee Print, 88th Congress, 1st Session): Washington, D.C.: GPO, October 31, 1963.
27. Ibid., p. 51.

make effective the following major program features:[28]

More effective use of the incentive system to achieve maritime objectives with the least possible subsidy costs.

Stimulation and application of technology to improve shipping productivity and service and to open new markets.

Creation of an atmosphere of mutual respect and cooperation in the common interest of all parties in the maritime field.

Constructive and fair regulatory protection of the public interest and of the interest of U.S.-flag shipping.

Purposeful Federal leadership of a genuine national team effort directed at renewal of the merchant marine.

INTERAGENCY MARITIME TASK FORCE REPORT ON "THE MERCHANT MARINE IN NATIONAL DEFENSE AND TRADE: A POLICY AND A PROGRAM" (1965)[29]

This is a report (sometimes called the Boyd Report) of an investigation and study by a task force organized in June 1965 under the direction of Under Secretary of Commerce for Transportation Alan S. Boyd. It was unique among the many committees and commissions investigating maritime policy that it had representation from many agencies and departments of the Federal Government (including the Bureau of the Budget, Council of Economic Advisers, Department of State, Department of Defense, Department of Agriculture, Department of Labor, Federal Maritime Commission, and the Maritime Administration in addition to other Department of Commerce representation) and was, therefore, called the Interagency Maritime Task Force.

The report was, upon completion, submitted to (among other government agencies) the President's Maritime Advisory Committee, which was, at the instant, reaching separate and different conclusions (submitting both majority and minority reports). It is informative to note here that this Interagency Task Force Report, which was referred to in complimentary terms in the minority report, was disparaged and its sponsor (Secretary Boyd) denounced in the majority report.

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28. Ibid., p. iii.
29. The Merchant Marine in National Defense and Trade: A Policy and a Program, Report of the Interagency Maritime Task Force; Washington, D.C.: October 4, 1965.

The report, after defining the areas of national need and analyzing them in combination, arrived at a fleet of active ships, plus reserve ships of adequate quality, under U.S. registry, of definitive size, spelled out in terms of general cargo, bulk cargo and tanker requirements.

Their resultant recommended program included the following major pertinent features:[30]

1. Maintain the existing CDS for the next two fiscal years and then adjust the CDS for subsequent years based on a determination of the Secretaries of Defense and Commerce as to the level of private shipbuilding capacity "required by national security considerations."

2. "Create an annual construction subsidy fund calculated to adequately support the national security need for private shipbuilding capacity. Funds would be available on a bid basis to build, convert or repair ships for any American ship operator in the foreign trade."

3. Restructure operating subsidies to allow greater freedom of operation to encourage productive, profitable operations with less-detailed government interference.

4. "After the level of shipbuilding to support national security shipyard needs has been met, ship purchasers would be free to build or repair ships abroad without subsidy support and without limitation as to number of ships. These ships would be eligible for all privileges of U.S. registry, including domestic privileges."

5. "The Task Force strongly supports the objective advocated by a number of prominent labor leaders, that the nine seagoing maritime unions consolidate themselves into a smaller number of effective groups under one unified leadership to provide greater industry stability."

6. "The Government would consider participating in realistic labor-management discussions leading toward an equitable final settlement of employment and manning problems that would...[produce stability, maximum automation, etc.]..."

7. With respect to the domestic fleet, "under the overall program for shipyard support, ships can be built abroad for U.S. registry with full privileges for domestic use. That is, they would be allowed to purchase their capital equipment on the world market in

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30. Ibid., pp. 7-12.

the same manner as operators in the other domestic transportation modes such as rail, air, truck and pipeline."

8. "The long-term future of the industry depends upon new concepts, technologies and systems, which in turn demands the coordinated use of increased research and development...the nation spends proportionately less on maritime research and development than any other transportation mode."

Finally, the Task Force envisioned that, in broad terms, the following legislative changes would be required to permit implementation of its recommended program:[31]

1. Amendment of the Act of 1936 to authorize the revised system of operating subsidy for liner services and the extension of operating subsidy to bulk carriers.

2. Revision of the Shipping Act of 1920 [Jones Act] and the Merchant Marine Act of 1936 to permit extension of all privileges of U.S. registry to ships built in foreign yards.

3. Amendment of Public Law 664...in order to phase out cargo preference.

4. Legislative authority would probably be required if the Government is to participate in labor-management financial settlement, as is proposed.

This Interagency Maritime Task Force report was, to say the least, unenthusiastically received, both in most of the sectors of the maritime community and in the cognizant congressional committees. It was made even more unpalatable to the maritime community when Secretary Boyd coupled its recommendations with the additional proposal to move the Maritime Administration into the new Department of Transportation.

MARITIME ADVISORY COMMITTEE'S REPORT TO THE PRESIDENT ON "MARITIME POLICY AND PROGRAM OF THE UNITED STATES" (1965)[32]

31. Ibid., p. 14.
32. Maritime Policy and Program of the United States, Report and Recommendations of the Public Members of the Maritime Advisory Committee, submitted to the full Committee for its considerations (adopted by the Full Committee, by majority vote on November 30, 1965); Washington, D.C.: November 22, 1965 (revised November 27, 1965).

The Committee report is noteworthy for its inclusion of lengthy dissenting opinions and recommendations submitted as minority reports, as well as the conclusions and recommendations of the majority.

The majority report dealt with operating as well as construction problems and made many recommendations which, in general, appear to be aimed at satisfying all possible members of the subsidized maritime community. Among the more pertinent of these recommendations were:[33]

1. "...reliance cannot be placed on foreign flag vessels, whether under so-called effective United States control or not, to meet these requirements in time of war or emergency."

2. That the government commit itself to a construction program that will insure attainment of U.S. dry bulk fleet capacity to handle 30% of the import-export commerce; that these vessels be built in the U.S., with CDS; that the design be as standardized as possible to insure the lowest possible costs but at the same time to insure maximum productivity and efficiency for competing in the world market.

3. That the government adopt one or more of several alternative measures to insure achievement of the goal of carrying at least 30% of our liquid import cargoes in American-flag tankers.

4. The CDS payments should be made on the basis of direct support to the shipbuilding industry.

5. "That the government establish a national Maritime Research Foundation, with cooperation and involvement of all segments of the industry, whose goal will be the exploration of new technology for improvement of our merchant fleet."

6. "...the establishment of a permanent labor-management council in the Department of Labor."

Although told by the Secretary of Commerce that "existing ships under the American flag are adequate to meet presently established requirements for services by the Military," the report goes on to state, "Despite the reassurances given to the Committee, it has grave misgivings about the adequacy of the present fleet."[34]

The minority report, a definite and strong dissent to the

33. Ibid., pp. 6-64.
34. Ibid., pp. 3-4.

majority report, consisted of a lengthy discussion of each point of consideration. It labeled the majority report as a "defensive, protectionist document which would further compound the present inadequacies of the merchant marine,"[35] and its recommendations could, in sum, be quite loosely paraphrased as "leave it to private enterprise, with fewer restrictions; we'll compete."[36] Some of these minority recommendations follow:

> The United States flag fleet should be permitted to grow to the extent feasible without subsidy. Our government should provide a subsidy only for that portion of our fleet necessary to meet our emergency requirements, i.e., our military needs plus our urgent civilian needs.
>
> The Department of Defense with the aid of other cognizant government agencies should determine the shipyard capability that should be maintained for emergency needs, i.e., the mobilization base.
>
> The concept of the "effective controlled fleet" should be encouraged because of the real benefits derived by our government from the existence of this fleet and because no benefit will result to anyone other than foreign nationals from its destruction.
>
> No import quotas should be established requiring the movement of a percentage of import commercial cargoes on United States flag vessels. To provide otherwise in the long run would bring substantial harm not only to the United States shipping industry but also to other industries in the United States.

AN ASSESSMENT OF MARITIME TRADE AND TECHNOLOGY (1983)[37]

Because of their concerns about the viability and productivity of U.S. maritime industries, as well as the future U.S. position in world trade, the House Committees on Merchant Marine and Fisheries and on Ways and Means jointly requested the Office of Technology Assessment to prepare this report.

The Assessment of Maritime Trade and Technology traces prevailing conditions and dominant trends that are important to the way the Federal Government assumes its responsibility for developing and implementing policy. The report contains analyses

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35. Ibid., p. 1 of "Statement of J. Andreae."
36. Ibid., pp. 70-75 of "Statement of H. Lee White."
37. An Assessment of Maritime Technology and Trade; Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-0-220, October 1983.

of the world outlook for trade, shipping, and shipbuilding. It identifies the extent of U.S. participation in these enterprises. It analyzes the U.S. shipping and shipbuilding industries and identifies certain weak and strong attributes. It discusses trends in technology as well as in the policies of the U.S. and our major trading partners.

In summary, the report concludes that:[38]

1. The U.S. maritime policy framework that exists today is outdated and appears inadequate to address critical maritime problems of national concern. It is clear that major new or revised Federal policies are needed if the U.S. maritime industries are to remain healthy in the decades to come.

2. Analysis indicates that the U.S. has no overall, coordinated and effective maritime policy that responds to the major trends and realities confronting the U.S. maritime industry in the increasingly competitive and complex arena of world seaborne trade. Existing maritime policies are a patchwork of measures adopted at various times to address specific needs.

3. There is a vital link between the U.S. economy and U.S. participation in international commerce, of which ocean transportation is an integral component.

4. In the U.S. shipping industry, the two major, distinct business sectors (liner and bulk) have very different problems and outlooks. Policies directed toward each sector need to reflect those differences.

5. If the trade growth rate is slow in comparison to the previous decade, U.S. carriers will be forced to compete with rapidly growing foreign flag fleets for the limited cargo available -- and will need continually to increase service efficiency and capability. Some experts believe that without policy changes, the size and capabilities of the U.S. flag fleet will decline markedly over the next 10 years.

6. The U.S. has a large and diversified shipbuilding industry, foremost in construction of large and complex naval warships. However, the U.S. shipbuilding industry has faced a severe decline in new buildings of major merchant ships. The elimination of Federal funds for construction subsidy programs has made future prospects for commercial shipyards bleak. OTA analysis suggests that U.S. shipyards can improve their competitive position in the world, but only with a major concerted effort on the part of both industry and the Federal

38. Ibid., pp. 3-15.

Government. The future viability of U.S. commercial shipbuilding will depend on some form of Federal support.

7. Federal policies and practices could have a profound influence on whether U.S. flag ship operators are treated fairly by other countries and given equal and competitive rights to carry cargo. There is at present no generally accepted U.S. cargo policy because national interest are not defined and no strategies for international negotiation have been developed. Lacking such strategies, the U.S. has remained on the sidelines, while the rest of the world defines the rules of cargo access.

8. The present administration has eliminated funding for ship construction subsidies and has sought to phase out ship-operating subsidies. New policies are needed to substitute for these programs, however, if a Federal role of promoting U.S. maritime interest is justified by overall national interest.

9. There is a need for maritime research and development (R&D). Since there is no comprehensive policy defining the Federal role in maritime affairs in general, there is also no clear policy regarding the Federal role in maritime R&D. While the Federal approach to industry promotion has changed drastically in recent years, little attention appears to have been given to the resulting impact on R&D. Thus, the R&D program now under the authority of the Maritime Administration has no clear focus or set of long-range goals.

10. It has been difficult in the past to develop a comprehensive policy that integrates the important aspects of trade promotion, cargo access, maritime regulation, industry incentives, and maritime research. Federal agencies, lacking a coordinated approach, often have sought conflicting goals. For example, while the U.S. Navy claims the need for an extensive commercial shipbuilding industrial base, it shifts the execution of such a policy to the Maritime Administration, which has been able neither to devise a strategy nor to provide the resources to maintain such a base.

THE "DOD SEALIFT STUDY" (1984)[39]

In the summer of 1982, the Defense Resources Board (DRB) took

39. DOD Sealift Study (SECRET); U.S. Department of Defense, 1984.

up the issue of sealift and prepositioning and chartered a study of sealift requirements. The study assumes the airlift capacity recommended by the Congressionally Mandated Mobility Study (SECRET), and models remaining sealift, prepositioning and cargo offload requirements for dry cargo, especially oversized and outsized military "unit equipment." The planning scenario is that of the Joint Chiefs of Staff: a world wide, conventional war, starting in Southwest Asia and spreading to the NATO countries, to Korea and into three oceans. Because surge and sustaining sealift needs in the NATO and Northeast Asia theaters would be provided mainly by allied shipping in these regions, sealift requirements are examined principally for projection of forces to Southwest Asia and their resupply. Several scenarios, differing as to the U.S. response time to be pre-conflict warning signs and in our time of entry into the conflict area, are tested.

Conclusions drawn from the study were made public in a letter from the Secretary of Defense (Weinberger, 1984) to the Secretary of Transportation : "The current best estimate of the sealift necessary" to meet dry cargo lift requirements for Southwest Asia is sufficient shipping capacity to... "move about 800,000 short tons of military unit equipment...during surge operations and about 1.7 million short tons of resupply and ammunition during sustaining operations." Timely delivery is estimated to require 4.6 million dwt of shipping capacity for surge and an additional 3.3 million dwt for sustaining sealift. Combining all government-controlled sealift assets, ongoing DOD programs to enhance the sealift capability of commercial vessels, and a Maritime Administration study projecting a modest 15-percent decline in militarily useful U.S.-flag shipping (from 1.9 to 1.6 million dwt), the "DOD Sealift Study" concluded that U.S. sealift capacity was more than adequate for resupply and marginally adequate for a full deployment. A Navy program to convert containerships to militarily useful vessels would reduce the shortfall in dry cargo surge capacity to an estimated 10 percent, a risk deemed acceptable, given the uncertainties of the study. A more recent Maritime Administration projection, however, showed a 52-percent decline in U.S.-flag dry cargo shipping (from 1.9 to 0.9 million dwt), which would create a significant shortfall in required sealift capacity.

SHIPYARD MOBILIZATION BASE (SYMBA) STUDY (1984)[40]

This study draws from a common set of scenarios, data, assumptions, and results of the concurrent DRB-directed "DOD Sealift Study." The conflict scenario that establishes industrial sector demands is global in nature and creates

40. Shipyard Mobilization Base (SYMBA) Study (SECRET); U.S. Department of the Navy and the Maritime Administration, 1984.

significantly different initial resource demand distribution than previous, less complex planning scenarios. The short-term (up to 1-year) and long-term (up to 3-years) implications were examined, but without assuming that additional shipbuilding capacity was added. The study draws heavily on simulation modeling in order to permit analysis of complex interactions and to serve as a basis for recurring appraisals.

The U.S. shipyard potential mobilization base, as catalogued in this study, consists of an inventory of 119 shipyards, including eight Naval and one U.S. Coast Guard shipyard. These yards, as of October 1982, met certain minimum criteria. Unlike previous "definitions" of the mobilization base which focused on establishing requirements, the current study established an inventory of yards and facilities and assesses ability to meet the specific mobilization demands levied by the scenario, mobilization policy, and key assumptions. For the SYMBA Study, not all 119 yards were used and not all facilities in the engaged yards were required.

All 119 shipyards are available for mobilization tasks to the extent that their facilities and workforce are not allocated to the approved completion of orderbook work underway at the beginning of mobilization. The study uses programmed DOD forces and projected commercial fleets for the late 1980's.

Based on the study assessment, a number of selected conclusions can be drawn about the ability of the shipbuilding and repair industry to meet the demands imposed by mobilization for a hypothetical global war.

1. The scenario chosen strongly influences the adequacy or inadequacy of the base.

2. Assumed mobilization demands and stated planning objectives appear to be feasible with the base which was in place in October 1982.

3. Navy work alone, as projected in the study, would not sustain an adequately diversified base.

4. Requirements for facilities and manpower are dependent on the assumed utilization rates and productivity indices.

5. Adequate peacetime planning will facilitate successful mobilization.

6. A base of about 103 private yards seems adequate to meet mobilization demands during the initial period.

NATIONAL DEFENSE SHIPYARD (NADES) STUDY (1985)[41]

The National Defense Shipyard (NADES) Study was commissioned to extend the analysis of the Shipyard Mobilization Base (SYMBA) Study to evaluate the ability of a constrained base to accomplish defense-related mobilization tasks.

The combined effects of changing FY 85 program data, increasing the mobilization time prior to D-day, and modifying the ways manpower and activations are modeled, resulted in a fairly steady workload requirement overall.

Twenty-six yards would be manpower-constrained early in the mobilization, some for only one month. The Gulf and West Coasts would have a larger fraction of yards constrained, while several East Coast Yards would be constrained longer (up to nine months). No attempt was made to model movements of workers among yards as workload changed, however, since several yards in an area were usually constrained at once, or one yard was the only one qualified for certain types of work. Because many yards were not required to use as much manpower as they could add, the aggregate coastwise requirements do not show any constraint.

A summary assessment suggests the following:

1. The increasing strategic importance of the Gulf Coast region, coupled with plans to base a battle group there, argues for developing additional combatant repair capability in the future.

2. The importance of having commercial repair yards at wartime ports of embarkation (POEs) should be evaluated. Several such ports (at least one on each coast) do not appear able to sustain in peacetime the yards required for mobilization work.

3. Present RRF layup sites may be too concentrated to be serviced rapidly by available breakout crews and towing assets, so Navy will outport as required to prevent delays.

4. The Bureau of Labor Statistics should be asked to provide an assessment of the national work force ability to produce skilled shipyard workers in the numbers required, particularly on the Gulf and West Coasts, for the initial surge in mobilization. If skilled workers cannot be produced at the rates at which the yards can expand production, the study results will be optimistic, and there is some doubt whether the required mobilization tasks could be performed in a timely manner. However, this conclusion has to be tempered by

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41. National Defense Shipyard (NADES) Study (SECRET); U.S. Department of the Navy and the Maritime Administration, 1985.

the fact that about 200,000 workers were added to U.S. yards in the first quarter of our entry into WW II.

5. A battle damage repair assessment, including availability of replacement weapons system components, should be made to determine the validity of the estimates originally made in SYMBA and used in the NADES study.

A SPECIAL REPORT TO THE PRESIDENT AND THE CONGRESS "SHIPPING, SHIPYARDS AND SEALIFT: ISSUES OF NATIONAL SECURITY AND FEDERAL SUPPORT" (1985)[42]

Beginning in May, 1983, the National Advisory Committee on Oceans and Atmosphere (NACOA) sought to review carefully the national defense needs for sealift and shipyard mobilization base. NACOA defined the issue as follows:[43]

A. What is the most effective and least costly way to ensure that adequate sealift capacity will be available in the time frame required for a major modern conflict?

B. What level of shipbuilding capacity would ensure an adequate base for mobilization and new ship construction and repair in a major conflict?[44]

C. To the extent that shipping and shipbuilding capacity is required, what level and type of Federal support are needed or appropriate?

NACOA reached the following conclusions:

1. Under current defense scenarios, sealift requirements for the initial stages of a modern major conflict depend more on the sufficiency of U.S. controlled shipping -- and on trained U.S. crews -- than on shipbuilding capacity. Shipyard facilities can be expanded for new shipbuilding during a prolonged conflict. National efforts should therefore emphasize developing a viable Federal and commercial sealift fleet in peacetime, rather than preserving excess shipyard capacity.

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42. Shipping, Shipyards, and Sealift: Issues of National Security and Federal Support; A Special Report to the President and the Congress, National Advisory Committee on Oceans and Atmosphere, Washington, D.C.: July 1985.
43. Ibid., pp. 1-2.
44. Ibid., pp. 93-96.

2. Despite several recent major shipyard closures, the U.S. still has a very large shipbuilding and ship repair capacity, one of the largest in the world. There is sufficient surge capacity within those yards expected to survive economically, without direct government supports to satisfy wartime needs as defined by current defense scenarios. No Federal support of shipyards is necessary beyond peacetime defense contract work.

3. Requirements to build in U.S. shipyards have, in recent years, impaired the competitiveness of U.S. operators of oceangoing, self-propelled cargo vessels, and have contributed to the decline of the U.S. flag fleet. Through subsidies, tax credits and increased freight rates, these measures also have imposed cost on the U.S. public at large. Despite their intent to support the domestic shipbuilding industry, the build U.S. requirements have failed in recent years to create substantial commercial work in U.S. shipyards.

4. Most recent proposals to aid the U.S. shipbuilding industry -- such as a federally funded merchant shipbuilding programs, renewed construction subsidies, a federally backed maritime redevelopment bank, and expanded cargo preference -- are either too small to in scope to be of significant impact, do not address the most serious problems, or would create larger problems.

DOD TANKER STUDY (1985)[45]

The DOD Sealift Tanker Study was conducted to determine DOD sealift tanker and bulk petroleum prepositioning requirements. The study uses the FY 86-90 Defense Guidance scenario and evaluates the adequacy of various tanker fleets and the effect of adding sources of refined products as well as fuel discharging constraints in SWA and the effects of attrition.

Of the tanker fleet variations considered, the most likely was used for program evaluation. This yielded a U.S. controlled tanker fleet with 245 Handy Sized Tanker Equivalent (HSTE) capacity of coated tankers in 1990. The military requirement for coated tankers is 275 HSTE capacity. Adding in other likely developments yields a requirement for 320 HSTE capacity to meet both military and civil requirements. This results in an expected shortfall of 75 HSTE capacity of coated tankers under today's sourcing policy.

The study recommends that we:

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45. DOD Sealift Tanker Study (SECRET), U.S. Department of Defense, 1985.

1. Continue efforts to secure commitments for NATO tankers.

2. Initiate efforts to expand the number of fuel sources available for planning.

3. Continue efforts to increase prepositioning ashore or afloat within SWA.

4. Prepare for the case where there is no progress made on recommendations 1 and 2 above, by adopting a FY 1990 objective of adding 30 HSTE capacity to the RRF, with a minimum availability of 30 days. Also, on an opportune basis, add up to 45 HSTE capacity to the NDRF.

5. When possible, test the state of the coatings of tankers in the U.S. flag fleet that are currently in the crude trade. Also, tests of the cleaning times of coated and uncoated tankers currently in crude trade should be conducted, particularly to address the time required to clean these tankers so that they can carry jet fuels.

MARAD ECONOMIC SUPPORT SHIPPING STUDY (1985)[46]

This DOT study examines the merchant shipping capacity required to support the U.S. economy shipping requirements for three types of merchant vessels, irrespective of flag: general cargo (liner) vessels, dry bulk carriers, and tankers. Economic shipping requirements include both essential imports and essential domestic shipping requirements.

The analysis is based on a major war that occurs in 1990. The nature of the conflict is defined by current strategic planning scenarios, with major points of conflict in Europe, Northeast Asia, and Southwest Asia. Conflict in each section is assumed to have significant impact on U.S. trade with that area. The study examined the "worst-case" wartime conditions, with a maximum denial of foreign sources of bulk and liner cargoes and with no waterborne imports of crude petroleum or products. Two cases of moderate source disruptions are also examined in the study.

Several conclusions can be drawn from this analysis:[47]

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46. Economic Support Shipping, U.S. Department of Transportation, Maritime Administration, Washington, D.C.: April 15, 1985.
47. Ibid., pp. IV-1 - IV-11.

1. The requirement for general cargo ships falls considerably in the wartime scenarios. This is consistent with the expectation that U.S. imports will be greatly curtailed in wartime, since trade in non-essential goods would diminish.

2. The requirement for wartime dry bulk shipping is virtually unchanged from the peacetime level. This condition reflects the combination of two factors: the projected increase in the level of bulk imports (as indicated by the NSC Stockpile Study), in combination with the denial of certain major sources of bulk imports. The result is greater levels of imports from South American and Caribbean sources.

3. The requirement for product tankers in the domestic trades represents the most significant increase from peacetime levels. This reflects the assumption that the disruption of foreign sources of supply for crude and product will be accompanied by a corresponding drawdown of the Strategic Petroleum Reserve (SPR).

The MARAD Economic Support Shipping Study, which addresses both civil and military requirements, includes merchant shipping, irrespective of flag. The overriding issue in this analysis is that shipping resources available in wartime would be generally adequate, with the exception of the U.S. flag tanker fleet. The shipping resources available from the world fleets considered to be reliable are considered likely to be adequate to meet the emergency shipping requirements.

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APPENDIX H

COMPARISON OF THE MAJOR U.S. LINER COMPANIES, 1970 AND 1987

MAJOR U.S. LINER COMPANIES 1970 AND 1987

The tables on the following two pages provide a comparison of the major United States flag companies operating in the foreign and the domestic trades in the years 1970 and 1987. For the purpose of the comparison, a major liner company is defined as an operator that had five or more oceangoing ships in commercial service in 1970 or in 1987. Central Gulf and Waterman Steamship Company operated more than five ships in commercial service in 1970 but today operate one and three ships respectively, and are no longer considered major companies. Only four companies operating in the foreign trade -- American President Lines, Farrell, Lykes, and Sealand -- meet that description in 1987. Those four companies operate a total of 88 ships in commercial service. Since some companies operate ships in both foreign and the domestic trades, their designation was based on their principal operating area. The number of ships shown on the tables for 1970 includes the total number of ships in each company's fleet including ships operating in all trades and on charter to the Military Sealift Command; the 1987 numbers do not include ships on charter to the Military Sealift Command.

MAJOR U.S. LINER OPERATORS
(5 or more ships in commercial service)

OPERATING IN FOREIGN TRADE

COMPANY NAME	Number of Ships 1970	1987	REMARKS
American President Lines	22	24	
Central Gulf	11	1	Operating one ship in commercial service and six ships chartered to MSC
Farrell Lines	15	6	
Lykes Bros.	57	27	
Sealand Services	44	31	
Waterman Steamship Company	27	3	Filed Chapter 11 in Dec 1983; out of Chapter 11 in July 1986. Operating three ships in commercial service and three on charter to MSC
American Export ISB	30	---	Acquired by Farrell Lines in 1978
American Mail Lines	10	---	Merged with APL in 1973
Columbia Steamship	12	---	Out of business in 1970
Delta Steamship Lines	13	---	Acquired by Crowley in 1982 Assets sold to U.S. Lines in 1985
Gulf and South American	5	---	Acquired by Lykes in 1971
Moore-McCormack Lines	34	---	Acquired by U.S. Lines in 1983
Pacific Far East Lines	15	---	Went into receivership in 1978
Prudential-Grace Lines	22	---	Filed Chapter 11 in May 1986
Seatrain	26	---	Bankrupt in 1981
States Marine Line	48	---	Went out of business in 1973
States Steamship Company	13	---	Bankrupt in 1978
United States Lines	30	---	Filed Chapter 11 in Nov 1986
Total Number of Ships, 1970	434		
Total Number of Ships in Commercial Service, 1987		92	
		171	

MAJOR U.S. LINER OPERATORS
(5 or more ships in commercial service)

OPERATING IN DOMESTIC TRADE

NAME	Number of Ships COMPANY 1970	1987	REMARKS
Matson Navigation	15	7	
PRIMSA	---	8	Established in 1974 by the government of Puerto Rico
Alaska Steamship Co.	6	---	No longer in existence
Total number of Ships	21	15	

APPENDIX I

A GLOSSARY OF MARITIME TERMS

A GLOSSARY OF MARITIME TERMS

(Note: Words and terms within the definitions which are further defined in other glossary entries are printed in **bold type**.)

Afloat Prepositioning Force (APF): Those **Military Sealift Command**-subordinated vessels used for the prepositioning of military equipment and material for the Army, Navy, and Air Force, primarily located at Diego Garcia, but also in the Mediterranean and elsewhere. The ships include fuel and water tankers, **breakbulk** and **Ro/Ro** cargo ships, and **LASH** vessels, but do not include the 13 **Maritime Prepositioning Ships**.

ALIAS (Acquisition and Logistics Information System): The Navy's computer model used by the Commission to analyze current and future shipyard resource requirements. ALIAS is maintained by the **NAVSEA** Shipbuilding Support Office (NAVSHIPSO) at the Philadelphia Naval Shipyard.

American Bureau of Shipping (ABS): A United States-based, private classification (standards-setting) society for merchant ships and other marine systems.

Auxiliary Crane Ship (T-ACS): A converted container ship equipped with two or three twin, long-reach, heavy-lift cranes so that it can be used to unload **non self-sustaining** container ships, as well as its own cargo. Three T-ACS conversions have been completed, three are under conversion, and six more are programmed; all current T-ACS are part of the **Ready Reserve Force**.

Aviation Logistics Support Ship (T-AVB): Two **container-Ro/Ro** dry cargo ships converted for the **Military Sealift Command** to transport Marine Corps Intermediate Maintenance Activity (IMA) facilities for use in forward areas. Once the 300 vans of the IMA are unloaded, the ships would be available as cargo vessels. The T-AVBs are maintained in **Reduced Operating Ship** (ROS) status.

Bale Cubic: The space available for cargo, measured in cubic feet within a ship's cargo holds to the inside of the cargo battens, on the frames, and to the underside of the deck beams; a smaller volume than a ship's **Grain Cubic** capacity.

Bareboat Charter: A ship charter agreement whereby the charterer provides for all operating expenses, including crew, fuel, and maintenance.

Barrel (bbl): The standard liquid cargo unit of measurement: 42 gallons (5.515 cubic feet). One ton of fuel oil is equivalent to 6.63 barrels.

Beneficial Ownership: The owner who receives the benefits or profits from the operation of a merchant vessel. Often difficult to determine in cases where flags of convenience and multiple layers of corporate entities are involved.

Bilateral/-ism: In the maritime industry, a term referring to government-to-government agreements between two trading nations, whereby commercial cargo is shared between the merchant fleets of those nations under a fixed ratio.

Breakbulk Cargo: Miscellaneous, non-uniform general cargo, such as pallet-sized lots, bales of cotton, bagged commodities, drummed liquids, machinery, etc.

Breakbulk Ship: A vessel designed to carry breakbulk cargo and capable of loading and unloading that cargo with its own equipment, without resort to shore-side cargo-handling equipment.

Bulk Cargo: Cargoes shipped unpackaged, either dry (such as grains or ores) or liquid (such as petroleum products or chemicals). Bulk cargo service is generally not provided on a regularly-scheduled basis, but rather as needed.

Cabotage: Reservation of a country's coastal (domestic) shipping for vessels of its own flag registry.

Capital Construction Fund (CCF): A tax benefit for operators of U.S.-built, U.S.-registered ships in U.S. foreign, Great Lakes or non-contiguous domestic trade, whereby taxes may be deferred on income from the operations of these ships that is deposited in a fund used to construct replacement vessels.

Cargo Preference: Reservation of some portion or percentage of a nation's imports and exports for transportation in its own flag vessels.

Carriers: Owners or operators of vessels providing transportation services to shippers. Also used to refer to the vessels.

Chemical Tanker: A tanker equipped with the necessary pumps, piping, tank coatings and safety equipment to transport one or more types of industrial chemicals.

Coated tanker: Any tanker having its cargo tanks coated so as to facilitate their rapid and thorough cleaning between transporting different kinds of cargoes and, secondarily, to protect against the effects of corrosive cargoes.

Code of Conduct for Liner Conferences: A United Nations Conference for Trade and Development (UNCTAD)-sponsored cargo-sharing guideline arrangement for the movement of general cargo between trading partners. Generally taken as reserving up to 40 percent of the trade for each of the partners, leaving 20 percent for transportation by the ships of third-party nations. The agreement went into effect in 1983 for the signatory nations, of which the United States is not one.

Competition in Contracting Act (CICA): The law (10 U.S.C. 2304 and 41 U.S.C. 253) that calls for full and open competition in government contracting, a process in which all responsible offerors are allowed to compete. Department of Defense Directive 5000.35, the Defense Acquisition Regulatory System, implements the Federal Acquisition Regulation aspects of the Competition in Contracting Act.

Conference: Any international group of ocean cargo carriers serving common trade routes and collectively agreeing on rates and services.

Consol: A dry cargo ship intended to transfer cargo at sea to a naval support auxiliary for later further transfer to naval combatants. A number of break-bulk cargo ships in the **Ready Reserve Force** (RRF) are, or will be, equipped and intended to perform this service.

Contingency Plan: A plan for major contingencies which can reasonably be anticipated within the principal geographic sub-areas of a given command.

Construction Differential Subsidy (CDS): A direct subsidy program paid to United States shipyards by the federal government to offset higher construction costs in U.S. yards, enabling them to compete with foreign builders. The amount of the subsidy was determined by estimates of the construction cost differential between U.S. and foreign yards but could not exceed fifty percent of the total cost of the ship. The program is no longer funded.

Container Ship (or Containership): A vessel designed to carry standard modular cargo containers, enabling efficient loading, unloading and transportation of the cargo to and from the vessel. Such ships are defined as either "Self-sustaining" (able to load and unload containers using their own cargo-handling gear) or "Non-self-sustaining" (dependent on shoreside or other off-board cargo handling equipment).

Cost-type Contract: A reimbursement contract under which a target cost and fixed fee are established at the time of contract award, with the fee being expressed as a percentage of the target cost. Later changes to the scope of the work renegotiation.

Cross-trades/Trading: Foreign-to-foreign trade carried by ships from a nation other than the two trading nations.

Crude Tanker: A tanker equipped to transport crude oil and having the necessary pump capacities and piping to handle it. Normally equipped to handle only one type of liquid cargo at a time.

D-Day: The unnamed day on which a particular operation commences or is to commence.

Deadweight Tonnage (DWT): The total lifting capacity of a ship, expressed in long tons of 2,240 pounds. The difference between the light displacement and loaded displacement of a ship, it includes cargo, consumables, and the weight of the crew. "Cargo deadweight," also defined in 2,240 pound long tons, refers to the revenue-generating cargo capacity of a ship and is determined by deducting the weight of fuel, water, stores, dunnage, crew, passengers, and other items necessary for a voyage from the deadweight tonnage.

Displacement: The weight of a ship, expressed in tons (long tons of 2,240 lbs. English measurement or metric tons of 2,205 lbs.), equivalent to the weight of water displaced by the ship as it floats. "Light ship displacement" is the weight of the ship excluding cargo, fuel, ballast, stores, passengers, and crew--but, in steamships, including the water in boilers. "Full load displacement" is the weight of the ship at maximum, fully-loaded displacement.

Economic Support: Sealift necessary to maintain the essential functions of the nation's economy and the production of increased military material during wartime or national emergency. Economic Support lift requirements are in addition to those needed for strategic sealift.

Essential Trade Routes: Trade routes defined as essential to United States trade under **Maritime Administration** regulations requiring that government-subsidized ship operators maintain certain frequencies of sailings on those routes.

EUSC (Effective U.S.Controlled) Fleet: Those merchant vessels owned by U.S. citizens or corporations but registered under "flags of convenience" (usually defined as those of the Bahamas, Panama, Liberia and Honduras) whose ship registration laws do not interfere with the activities of foreign-owned ships. The term is used to emphasize that, although the EUSC fleet is not U.S.-flag, it is considered to be effectively under United States control by virtue of ownership and could requisitioned by the United States Government in time of war or national emergency. Also referred to under the acronym USEC (U.S. Effective-Controlled).

Federal Maritime Commission (FMC): An independent Federal Agency that regulates the waterborne foreign and domestic offshore commerce of the United States and protects against unauthorized, collusive activity. Other responsibilities include approving or disapproving agreements filed under section 19 of the Shipping Act of 1916, reviewing activities under those approved agreements, the acceptance or rejection of tariff filings, and the setting of maximum or minimum rates or suspending rates in domestic offshore trade.

Feeder Ships: Small merchant ships employed in transporting cargo to a central consolidation point for transfer to larger vessels for delivery to the ultimate port of destination and, conversely, for delivering cargo shipped to such a location onward to outlying port destinations.

Fixed Price Incentive Contract: A contract arrangement whereby the amount of profit received by the contractor is adjusted, based on performance against a target established at the time of contract award. The performance results--both good and bad--are shared by the contractor and the government, based on a predetermined ratio.

Flag of Convenience: The practice of registering merchant ships under flags not those of the owners, in order to obtain such benefits as tax advantages, lower operating costs, and lower construction costs. Also referred to as "flags of necessity."

Flag of Registry: The flag representing the nation under whose jurisdiction a ship is registered. Merchant ships are always registered under the laws of one nation but are not always required to establish their home port or base of operations in that country.

Flatracks: Portable, stackable platforms designed to be installed within container ship holds in order to convert those ships to carry a variety of military cargoes other than containers. Differ from **Sea Sheds**, which they are designed to augment, in that they have fixed floors. Standard commercial flatracks have a capacity of 30 tons; military heavy duty flatracks can be used to stow cargo weighing up to 60 tons.

Float-On/Float-Off (Flo-Flo) Ships: Heavy lift cargo ships designed to be ballasted down to permit the loading and unloading of floating cargoes.

General Cargo: Any cargo of manufactured goods or raw materials in non-uniform packages.

Government-impelled Cargo: Cargo owned or subsidized by the Federal Government.

Grain Cubic: The maximum space available for cargo within a ship's holds in cubic feet, incorperating all volume inside the shell plating of the hull and to the underside of the upper deck plating; a larger cargo volume than the ship's **Bale Cubic** rating.

Gross Tonnage (GRT): The internal cubic capacity of a vessel, with certain spaces excluded, expressed in "tons" of 100 cubic feet each, i.e., a measure of volume, rather than of weight. The spaces excluded include peak tanks and other tanks used for water ballast, and spaces above the uppermost continuous deck.

HSTE (Handy-Sized Tanker Equivalent): A hypothetical liquid cargo carrier of 27,500 **deadweight tons** and 200,000 **barrels** capacity; the term is used to equate military **POL** requirements to the number of tankers needed to transport those requirements. The **Military Sealift Command**'s nine SEALIFT Class tankers are among the few active tankers meeting the definition, with most commercial tankers being far larger.

Intermodalism: The concept of transportation as a door-to-door service, rather than port-to-port, and, most frequently, using cargo containers. Through intermodalism, efficiency is enhanced by having a single carrier coordinating the movement and documentation among different modes (truck, rail, barge, etc.) of transportation.

International Maritime Organization (IMO): A United Nations organization intended to coordinate international maritime safety and related matters, founded in 1958; formerly known as the Inter-Governmental Maritime Consultative Organization (IMCO).

ISNAC (Inactive Ships in Navy Custody): Those Navy-owned ships in reserve (the "mothball fleet") for which the Navy retains responsibility for maintenance and preservation. Other inactive Navy-owned ships (primarily auxiliary types) are maintained by the **Maritime Administration** in its **National Defense Reserve Fleet** (NDRF) or in the **Ready Reserve Force** (RRF).

Jones Act: The popular name for Section 27 of the Merchant Marine Act of 1920, which requires that all U.S. domestic waterborne trade be carried by U.S.-flag, U.S.-built, U.S.-crewed vessels.

Land Bridge: Container freight movement between Europe and the Far East wherein the cargo is unloaded at a U.S. port, moved across the country by rail or truck, and then again loaded aboard ship for the final leg of the journey.

LASH (Lighter Aboard Ship): A specific type of general cargo vessel intended to transport barges loaded with cargo. The barges, of about 400 tons capacity, are floated to and from the ship and loaded or unloaded by a heavy-lift, traveling crane at the ship's stern; the crane positions the barges aboard the ship, where they can be stacked in multiple levels. Most LASH ships have now been converted to handle containerized cargo as well.

Liner/ Liner Service: Merchant vessels operating on fixed itineraries or regular schedules at established rates and available to all shippers.

LNG (Liquid Natural Gas Carrier): A vessel specifically designed to transport liquid natural gas.

Long Ton: A ton of 2,240 pounds, universally employed in merchant marine practise in defining the **deadweight tonnage** of a ship.

LOTS (Logistics Over the Shore): A military term used to describe the supply and resupply of forces from ships in areas where there are insufficient permanent pier and cargo-handling facilities.

M-Day: The term used to designate the day on which a mobilization of military forces is to begin.

Maritime Administration (MARAD): An organization within the Department of Transportation with responsibility for administering subsidy programs; providing financing guarantees for the the construction, reconstruction, and reconditioning of ships; entering into capital construction fund agreements; conducting research and development for merchant ships and related maritime systems; maintaining the **National Defense Reserve Fleet** (NDRF) and **Ready Reserve Force** (RRF); operating the U.S. Merchant Marine Academy and administering Federal assistance to State maritime academies; overseeing enforcement of cargo-preference laws; chartering government-owned ships to U.S.-operators; requisitioning ships owned by U.S. citizens under emergency conditions; administering war emergency insurance programs; and, in conjunction with the Navy, defining the nation's shipyard mobilization base and sealift requirements.

Maritime Prepositioning Ships (MPS): The 13 chartered ships organized into three Maritime Prepositioning Squadrons and maintained in the Atlantic, Pacific, and Indian Oceans by the Military Sealift Command to preposition 30 days worth of stores and equipment for a Marine Corps Assault Battalion.

Measurement Ton: A ton of 40 cubic feet; a volumetric measurement term used in logistics planning.

Microbridge: A joint water, rail or truck container movement one one bill of lading to or from a foereign port, to or from an inland United States location, i.e., a form of "**intermodalism**".

MIDAS (Model for Intertheater Deployment by Sea and Air): A computer simulation operated by the Department of Defense, Director, Program Analysis, Projection Forces Division, which, through heuristic scheduling algorithms, selects modes of deployment of each unit in a force, schedules the movement of units by aircraft and/or by ship, and simulates the activities of the ships, aircraft, and port facilities and the effects of attrition.

Military Airlift Command (MAC): The Department of Defense single-manager operating agency for designated military airlift services.

Military Traffic Management Command (MTMC): The Department of Defense single-manager operating agency for military traffic, land transportation, common-user ocean terminals, and intermodal containers.

Militarily Useful Ship: For military logistics planning purposes, a Joint Chiefs of Staff definition. All oceangoing general cargo ships of over 6,000 deadweight tons; certain dry cargo ships of under 6,000 deadweight tons with special military features (such as heavy lift ships, **float-on/ float-off** cargo ships, etc.); tankers (including **chemical tankers** but excluding molten sulphur, asphalt, and liquid natural gas tankers and other uniquely specialized ships) of 6,000 to 100,000 **deadweight tons** and with a beam of less than 106 feet and capable of handling or being modified to handle refined petroleum products; and oceangoing passenger ships (excluding ferries) are considered to be "militarily useful."

Military Sealift Command (MSC): That command within the Navy responsible for the transportation of all Department of Defense seaborne cargo. Also responsible for administering specialized naval support and scientific ships and would be responsible for operating the ships of the **Ready Reserve Force** (RRF) when reactivated. For operational purposes,the Military Sealift Command is subordinate to the **Unified Transportation Command.**

Multilateral/-ism: Cargo sharing agreements among a number of nations, with the goal of allocating some or all of the cargo imported and exported by those nations to be carried by the merchant fleets of those nations. The UNCTAD **Code of Conduct for Liner Conferences** is an example of "multilateralism."

NADES (National Defense Shipyard Study): The February 1985 Navy study to extend the analysis of the 1984 **Shipyard Mobilization Base Study** (SYMBA) to evaluate the ability of a constrained shipyard industry base to accomplish defense-related mobilization tasks.

NATO (North Atlantic Treaty Organization): The sixteen nations signatory to the North Atlantic Treaty, a political and military alliance to which not all members contribute military forces.

NATO RSI (Rationalization, Standardization, and Interoperability): The effort, codified in the Department of Defense Directive (DoDD 2010.6) dealing with NATO Standardization, promotes the NATO RSI goal through establishment of general and reciprocal memoranda of understanding (MOUs) with NATO allies to encourage bilateral arms cooperation and trade, establish regular review of armaments programs and trade, and make efficient use of NATO resources; the negotiation of dual production or coproduction of weapons systems; and the cooperative creation of new families of weapons systems.

NAVSEA (Naval Sea Systems Command): The organization within the Navy responsible for the design, construction, and maintenance of ships. Also responsible for approving **National Defense Features** (NDF) in subsidized merchant ships.

NDF (National Defense Features): Military support capabilities built into a merchant vessel as required by government subsidy agreements. The program is no longer in effect, funding having been provided by the defunct **Construction Differential Subsidy** program.

NDRF (National Defense Reserve Fleet): A fleet of inactive merchant vessels maintained by the **Maritime Administration** at three layup sites: James River, Virginia; Beaumont, Texas; and Suisun Bay, California. NDRF ships are considered to be reactivatable in 60 or more days and are intended to be used as attrition replacements or in **economic support** service.

Neobulk: Shipments consisting entirely of units of a single commodity, such as automobiles, lumber, or scrap metal.

Net Registered Tonnage (NRT): The measurement of volume (in "tons" of 100 cubic feet) used for the calculation of tonnage taxes and the assessment of wharfage and other port dues. It is obtained by deducting from the **gross tonnage** the crew and navigational spaces, plus an allowance for the volume occupied by the propelling machinery.

Northeast Asia (NEA): The military **theater of operations** encompassing that area of northeastern Asia bordering the East China Sea, Yellow Sea, Sea of Japan and Sea of Okhotsk.

Non Self-Sustaining (NSS): Vessels dependent on outside systems for the loading and unloading of their cargoes.

OBO (Oil/Bulk/Ore) Ship: A merchant vessel designed to transport combinations of petroleum, dry bulk cargoes, and ores.

OECD (Organization for Economic Cooperation and Development): An organization of economically developed, industrialized Western nations.

Offsets: A range of industrial and commercial practices required as a condition of purchase of military-related exports, either through the Foreign Military Sales (FMS) program or through commercial sales of defense articles or services.

Open Registry: A term used in place of "flag of convenience" or "flag of necessity" to denote registry in a country which offers favorable tax, regulatory, and other incentives to ship owners from other nations. Also referred to as "offshore registry." Some nations (i.e., Norway) are setting up their own offshore registries in order to retain control of merchant fleets "fleeing the flag."

Operating Differential Subsidy (ODS): A direct subsidy paid to U.S.-flag operators by the Government to offset the higher operating costs of U.S.-flag ships in comparison to their foreign-flag counterparts. Administered by the **Maritime Administration** (MARAD).

Panamax Ship: The largest vessel capable of transiting the Panama Canal. The significant limiter for ship design is the requirement for a beam of less than 106 feet -- for tankers, a ship of about 100,000 **deadweight tons** maximum.

Planning Board for Ocean Shipping (PBOS): The **NATO** organization which deals with providing sufficient merchant shipping for NATO area supply requirements. The **Maritime Administration** supplies the United States representative, who acts as co-chair.

POL: Petroleum, oil, and lubricants.

POMCUS (Prepositioned Organizational Material Configured in Unit Sets): Military equipment and supplies stockpiled at or near the point of planned use and tailored to the requirements of a specified military organizational unit. POMCUS is, in effect, a specific form of **prepo**.

Prepositioned War Reserve Stocks ("Prepo"): Military equipment and supplies stockpiled on land or sea, at or near the point of planned use or at a designated location chosen to reduce reaction time and to ensure timely support of specific forces during the initial phases of an operation.

Product Tanker: A tanker designed to transport one or more kinds of refined petroleum products, such as diesel, gasoline, or aviation fuels.

Ready Reserve Force (RRF): A Navy-funded, **Maritime Administration**-managed program to maintain inactive merchant ships in a state of readiness that would permit their activation within five, ten, or twenty days after notification.

Reduced Operating Status (ROS) Ships: Military Sealift Command-maintained inactive cargo ships that can be ready for loading within a short period of time--usually 72 hours. The ships now in this catagory are the eight Fast Sealift Ships (T-AKR) of the SL-7 Class, which are configured for rapid loading,transport, and unloading of Army combat equipment, and the two Aviation Logistics Support Ships (T-AVB).

Required Delivery Date (RDD): The specified date when material is actually required to be delivered to the final destination.

Resupply: The cargo which must be transported to a theater of operations during the sustaining period of a military operation.

Roll-on/Roll-off (Ro-Ro) Ship: General cargo ship designed to allow trucks or other vehicles to drive on and off with (or as) cargo via ramp systems.

Sealift Enhancement Features: Changes made to ships to improve their utility for military sealift. These include the ability to employ Sea Sheds and Flatracks, providing enhanced communications suites, provision for astern and/or alongside refueling rigs on tankers, provision for underway replenishment consolidation rigs and underway replenishment delivery rigs on breakbulk and container ships, adding the ability to accommodate container ship strike-up system modules, and the incorporation of improved cargo handling and tie-down systems.

Seabee: A type of cargo barge carrier developed by Lykes Brothers Steamship Company wherein the barges (which are of about five times the capacity of those carried by the similar LASH ships) are brought aboard or unloaded by means of an elevator at the ship's stern and are positioned aboard by means of a rail and winch system.

Sealift Enhancement Program: The Navy-sponsored and funded program to provide selected active and reserve merchant ships with militarily useful features, such as the capability to use Sea Sheds and Flatracks , provision for enhanced communications suites, and fittings to provide and underway replenishment capability.

Sea Sheds: Oversized, open-topped structures with a hinged work-though floor, used to adapt commercial container ships to carry military vehicles and outsized breakbulk cargo. Sea Sheds have a capacity of 100 tons and occupy the volume normally taken up by four and one half standard cargo containers: 40 feet long, by 24 feet wide, by 12.5 feet high.

Self-Sustaining: Vessels capable of loading or unloading cargo using their own cargo-handling systems.

Shipbuilding and Repair Industry: Shipbuilding and ship repair facilities, including skilled production workers and experienced management personnel, and encompassing the suppliers of the materials, components and equipments needed for ship construction and repair.

Shippers: Individuals or business firms who purchase transportation services for their goods or commodities.

Shipper's Council: An organization of shippers formed to negotiate collective rates and services with the conferences of ship operators.

Shipyard Mobilization Base: Active United States shipyards capable of constructing and/or activating and repairing naval ships and large merchant ships of at least 400 foot length and 68 foot beam, and having a 12 foot clear water channel depth. These shipyards would form the nucleus for any expansion of the nation's shipbuilding and ship repair capability in time of war or national emergency.

Shipyard Suppliers: Those industries which manufacture or supply the raw materials, components or equipments necessary for the construction and repair of naval and merchant ships.

Short Ton: A ton of 2,000 pounds; normally used as a measurement for military logistics planning.

Shuttle Tanker: In the merchant marine context, a small tanker used to carry oil or petroleum products to or from a larger tanker. The Navy uses the term to apply to tankers used to resupply **underway replenishment** tankers which then, in turn, service combatant vessels.

SLEP (Service Life Extension Program): The Navy program to refit and modernize its ships so as to extend their service lives beyond the originally-projected dates for decommissioning them.

SL-7: A specific class designation for a group of eight container ships built during the 1970s for commercial service and capable of 33-knot maximum speeds. All were later purchased by the Navy for Military Sealift Command service and converted as vehicle and container carriers for rapid-deployment support of Army forces. As naval ships, they have been given hull numbers in the T-AKR series. Also described as Fast Sealift Ships (FSS), they are normally maintained in **Reduced Operating Status** (ROS).

Special Product Tanker: A tanker configured to carry a specific, non-petroleum liquid cargo, such as ammonia, wine, orange juice, toluene, liquid sulfur, etc.

Surge Phase: The initial period of movement of combat and support forces and their unit equipment to a theater of operations.

Sustaining Phase: That period after the surge phase has secured an area within a theater of operations, during which it is necessary to replenish and sustain forces already in place, primarily with food, ammunition, spare parts and replacement personnel, through the cyclical operation of sealift assets over the course of a conflict.

Southeast Asia (SEA): The theater of operations encompassing the geographic area of mainland Asia and those offshore nations bordering the South China Sea and its bordering enclosed seas.

Southwest Asia (SWA): The theater of operations encompassing the geographic region of the Arabian Peninsula, the littoral of the Persian Gulf, and the nations bordering or near the Arabian Sea.

SYMBA (Shipyard Mobilization Base Study): A 1984 Navy and Maritime Administration study on shipyard industry mobilization potential which determined that the then-existing inventory of mobilization-capable yards could not be sustained by Navy work alone.

TEU (Twenty-Foot Equivalent Units): The standard measurement of the cargo-carrying capacity of a container ship. Cargo containers most commonly are in 20 or 40-ft lengths, although other sizes are in use.

Theater/ Theater of Operations: A geographic area outside the continental United States to which a commander of a unified or specified military command has been assigned responsibility.

Title XI: A ship construction financing guarantee program, originally established under Title XI of the Merchant Marine Act of 1936, under which the Federal Government guarantees up to 75 percent of the construction cost of vessels built with a Construction Differential Subsidy (CDS) or up to 87.5 percent of the construction cost of non-subsidized vessels.

Tramp: A merchant vessel operating without a fixed itinerary, or schedule, or charter contract.

T-Ship: Naval vessels subordinated to the Military Sealift Command, which have a "T" prefix to their lineal hull numbers (i.e., T-AO 187, T-AKR 290, T-AGOS 12, etc.) These ships have civil service or civilian contractor crews, with some also having small Navy detachments aboard.

UE (Unit Equipment); A military logistics term for equipment and material to be deployed with a unit, such as tanks, armored personnel carriers, trucks, and helicopters, etc., much of which is heavy or outsized. Nonetheless, some Unit Equipment is containerizable.

ULCC (Ultra-Large Crude Carrier): A crude oil tanker with a capacity in excess of 400,000 **deadweight tons** (some definitions place the division between ULCC and VLCC, **Very Large Crude** Carrier, at 250,000 deadweight tons).

Uncoated Tanker: Any tanker with cargo tanks not coated to facilitate tank cleaning between loading different types of cargoes and to protect against the effects of corrosive cargoes.

Unified Transportation Command (UTC): The unified military command which coordinates and directs the activities of the **Military Sealift Command, Military Traffic Management Command,** and **Military Airlift Command.**

Unilateral/-ism: Policy by which a nation reserves certain types of cargoes to be carried exclusively by its own merchant fleet.

Underway Replenishment (UNREP): At-sea replenishment of fuel, stores, ammunition, and/or spare parts of combatant naval ships by other combatants, naval auxiliaries, or civilian ships, strictly speaking while the ships are in motion, but often simply meaning that they are neither moored to a pier nor anchored.

USTR (United States Trade Representative): A Cabinet-level official with responsibilities for representing the United States in international trade negotiations and for coordinating interagency international trade-related activities. The position was established under Section 301 of the Trade Act of 1974.

VLBC (Very Large Bulk Carrier): Any bulk cargo vessel in excess of 100,000 **deadweight tons.**

VLCC (Very Large Crude Carrier): Generally defined as crude oil tankers in excess of 200,000 but less than 400,000 **deadweight tons** capacity.